Analysis Report about Amber Heard

2020 Reddit Contributions

Adel Abu Hashim, Mahmoud Nagy

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Introduction

Note: This report is a part of **Case Study: "Reddit Social Network Analysis Against Influence Operation"**

By analyzing accounts posting/commenting against a victim of a Social Bot Disinformation/Influence Operation.

We have four main datasets scraped from Reddit

- 1. A dataset with submissions & comments data (2020).
- 2. Users Data (from 2006 to 2020).
- 3. A merged dataset (submissions & comments data, users data).
- 4. Daily creation data (# of accounts created per day from 2006 to 2020).

The data Timezone is Epoch/UTC.

Introduction **2**

Overview **6**

Stats of unverified accounts 6

The percentage of 2020 contributions made by Unverified accounts % 7

Statistics of Banned accounts 7

Top users statistics: 8

Statistics over years. 9

2020 accounts contributions scores 10

Peaks **11**

Peak Months 11

Peak Days of The Months 11

Peak Days of The Week 12

Peak Hours 12

Peak Dates 13

Feb 4, 2020 13

Feb 8, 2020 14

Feb 2, 2020 15

Nov 7, 2020 16

Feb 7, 2020 17

Exploratory Data Analysis **19**

Reddit Contributions (Comments / Submissions) 19

The # of submissions VS the # of comments 19

Most contributed user 20

Further Investigate The Most Commented Users In 2020 20

AutoModerator 20

Check whether the users with the most contributions are mod, gold or having a verified email 25
Investigate the text column 26
Lets first check for the users using the word 'f*ck' 26
Top user who contributed with this word more investigation 27
cracksniffer666: 27
pacmatt27: 28
Check for the repeated text 30
F*ck amber heard or F*ck Amber Heard 30
amber heard bad 30
Amber Turd 31
Check the number of text words 33
Reddit Comments 34
The number of parent comments on submissions 34
Reddit Submissions 34
Investigating the Submission Text (Submissions with the most comments and replies) 34
Audio_of_amber_heard_admitting_she_was_the_one 34
Johnny_depp_amber_heard_new_unsensored_audio 36
jand_he_lost_his_job_after_all_of_this_fuck_amber 37
Investigating the submissions with most comments(Top Level Comments) 39
Check the top 5 submissions in 2020 39
Check the authors of parent comments 40
Investigating authors with the most submissions 40
Investigate authors with the most submissions 40
Check whether the users with the most submissions are mod, gold or having a verified email 41
Submission URLS 42
Check the number of submission text words 43
Subreddits 43
Most used Subreddits 43
Merged Users Data with Comments/Submissions Data 44
Difference in time between creating the account and posting 44
Posting Duration After Account Creation 45
More investigations 45
Same Month 45
Same week 46
Same day 46
Estimation of Number of User Accounts Created in each year / having contributions in 2020 47
Contributions 47
Peak Day Contributions 48
Submissions 48
Peak Day Submissions 48
Total Scores 48
Average Scores per contribution 50
Average Scores per submission 51
Banned Accounts **51**
Banned-Accounts largest scores 51

Banned-Accounts minimum scores 51
Contributions of Banned accounts in 2020 51
Banned Accounts Contributions Peaks 51
Which dates had the highest contributions of banned users? 51
Submissions of Banned accounts in 2020 52
Banned Accounts Submissions Peaks 52

Unverified Accounts 52
Unverified Accounts With The Largest Link Karma 52
Unverified Accounts With The Largest Comment Karma 52
Unverified Accounts With The Minimum Link Karma 52
Unverified Accounts With The Minimum Comment Karma 52
Total Link / Comment Karma 52
Explore the largest scores 52
Explore the minimum scores 53
Contributions of Unverified accounts in 2020 53
Peak day contributions ( ) 54
Comments 54
Submissions 54
Submissions 54
Which dates had the highest contributions of unverified accounts? 54
New Vs Others 54
Total Link Karma 55
Total Comment Karma 55
New Accounts Contributions 55
New Accounts Submissions 56
Peak Day Submissions 56
Total Scores 56
Average Scores per contribution 56
Average Scores per submission 56
2020 Contributions Scores 56

Conclusions 57
Banned / Unverified Accounts 58
Banned 58
Unverified 58
Unverified Accounts Contributions in 2020 58
Unverified Accounts Submissions in 2020 58
New Accounts 58
New Accounts Contributions in 2020 58
Count_Money 58

Overview

- About **20%** of **2020 contributions** were made by
  - banned [1]**(7.97% → 10235)** .
  - unverified [2]**(13.3% → 17048)** .
- Abou **20% of 2020 submissions** were made by
  - banned **(14.9% → 1175)**
  - unverified **(6.48% → 511).**
- **22.17%** of the **peak** day **contributions (04/02/2020)** were made by
  - banned **(6.77% → 652).**
  - unverified **(15.4% → 1484).**
- **20%** of **submissions** of the **peak** day submissions (**04/02/2020)** were made by
  - banned accounts **(14.9% → 1175).**
  - unverified accounts **(6.48% → 511).**

Statistics of unverified accounts

- **Description of contributions scores**
  - count[3] 17043
  - mean 23
  - std 473.1
  - min -113
  - 25% 1
  - 50% 2
  - 75% 6
  - max 38903
- The percentage of **2020** contributions made by **Unverified** accounts **13.3%**
- Total unverified accounts contributions in 2020 **17048**.
- Total unverified accounts comments in 2020 **16537**.
- Number of contributed **users** is **8481**.
- The percentage of **2020 submissions** made by **Unverified** accounts **6.48%** with **511 submissions.**
- **rMemesMods** has the **least karma score**.

Statistics of Banned accounts

- **Description of contributions scores**
  - count 10226
  - mean 29.98
  - std 548.53
  - min -216
  - 25% 1
  - 50% 2
  - 75% 6
  - max 368

[1] This user banned from reddit
[2] The user has not verified mail for this account.
[3] Number of contributions of unverified accounts which have scores.

- The percentage of 2020 **contributions** made by **Banned** accounts **8%**
- Total **banned** accounts **contributions** in 2020 is **10235.**
- Total banned accounts comments in 2020 is **3680.**
- The percentage % of 2020 **submissions** made by **Banned** accounts **14.9%.**
- Total **banned** accounts **submissions** in 2020 **1175.**

Top users statistics:

- **Armpit-lover, this** user made 20 contributions with the same text, 13 of them in one subreddit.
- **rodrigohernandez4477** (banned), this user made 25 contributions with the same text in 25
  - 2020-12-05 (13) in 20 minutes.
  - 2020-11-28 (12) in 13 minutes.
- **cracksniffer666** (banned)
  - This user's contributions got the highest scores.
  - the highest score is (36.8K)
  - (Since this user is banned, we have no user information)
  - This user made 99 contributions (98 comments and only one submission).
  - 89 contributions from 99 were made at (10 Feb 2020)!
- **WouldYouKindley88** (banned)
  - These user contributions got the minimum scores.
- **Agree-with-you**
  - unverified account with the largest comment karma.
- **rMemesMods** (unverified)
  - This user's contributions got the lowest scores.
- **Lucaswebb** (unverified)
  - This user's contributions got the highest scores.

Statistics over years.

- 57.2% of 2020 contributions were made by newly created accounts (2018-2020).
- 88% of 2020 submissions were made by newly created accounts (2018-2020).
- 35% of the peak day contributions (04/02/2020) were made by newly created accounts (2018-2020).
- 65% of the peak day submissions (04/02/2020) were made by newly created accounts (2018-2020)

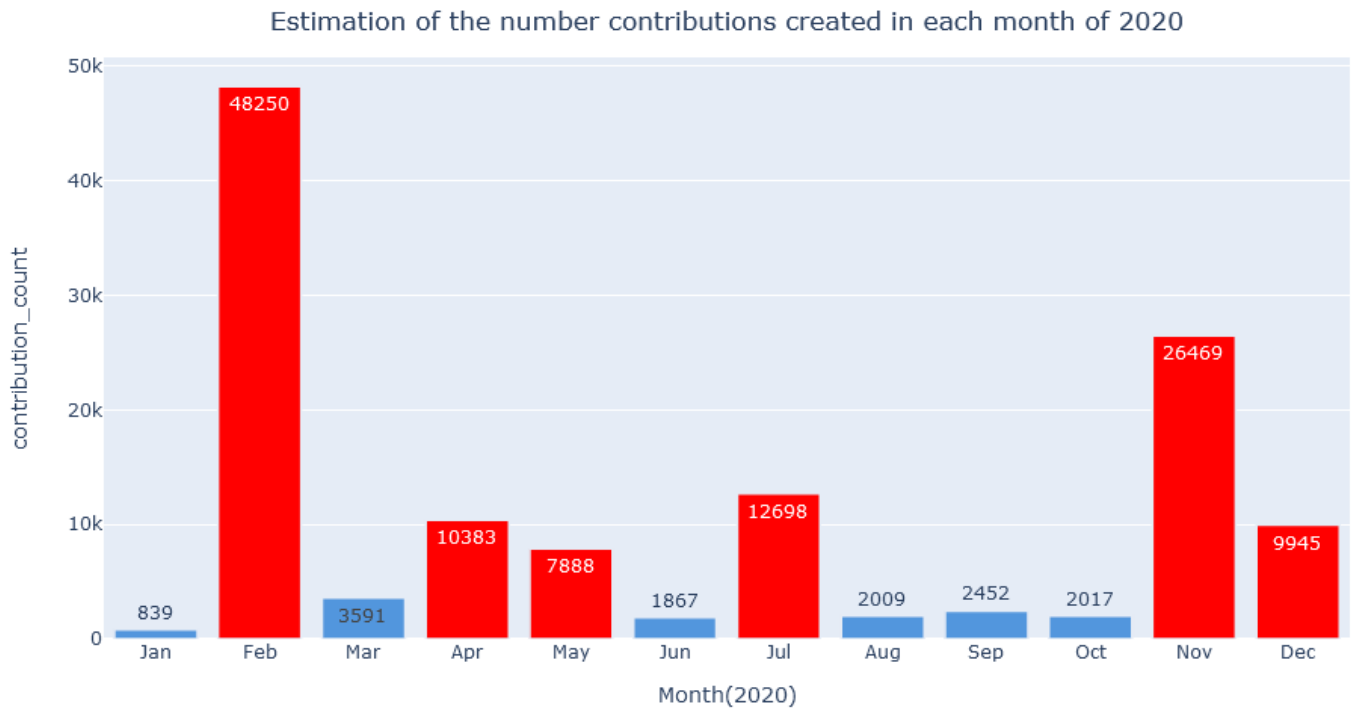
Year	Total contributions number	% of contributions made by this year of users[4]	Total comments number	Total submission number	% of submissions made by this year of users
2018	13125	10.2%	12541	584	7.41%
2019	20104	15.7%	19056	1048	13.3%
2020	13722	10.7%	12726	996	12.6%

[4] From accounts made in this year.

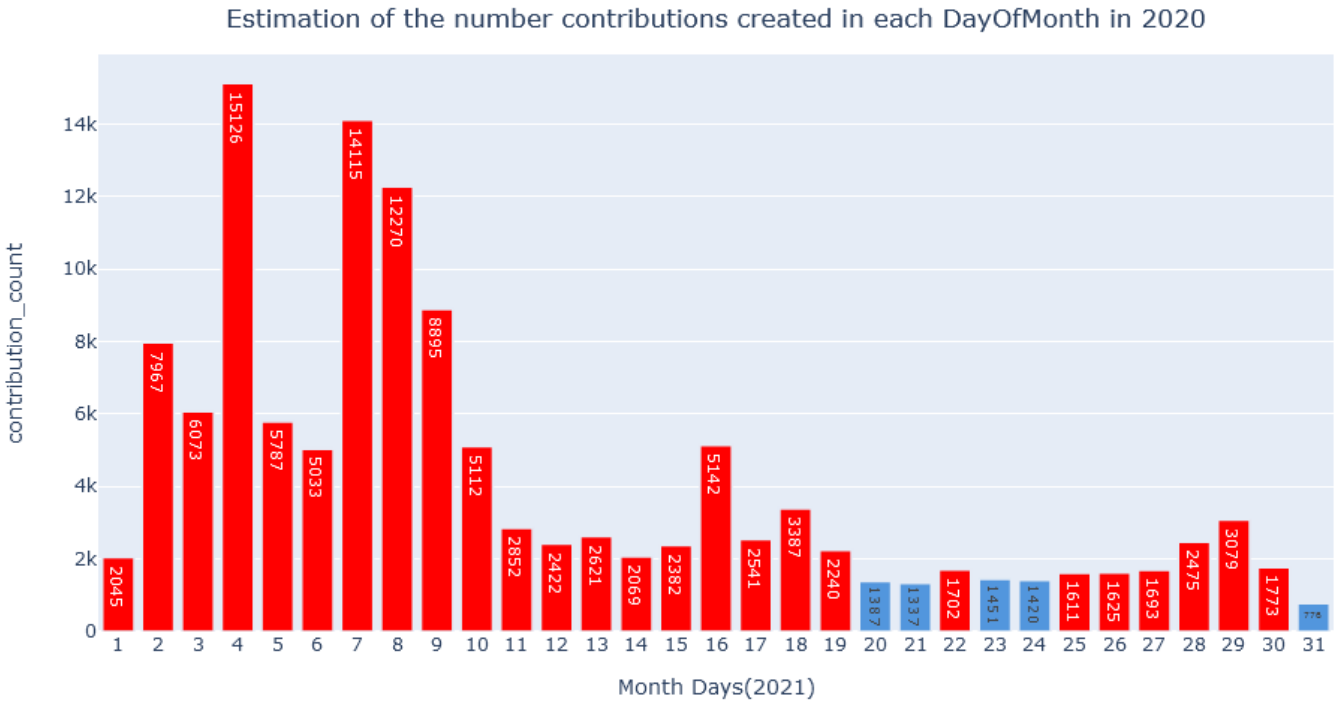
- 2020 accounts contributions scores
    - count 128358
    - mean 29.53
    - std 704.11
    - min -541
    - 25% 1
    - 50% 2
    - 75% 6
    - max 98525

Peaks

Peak Months

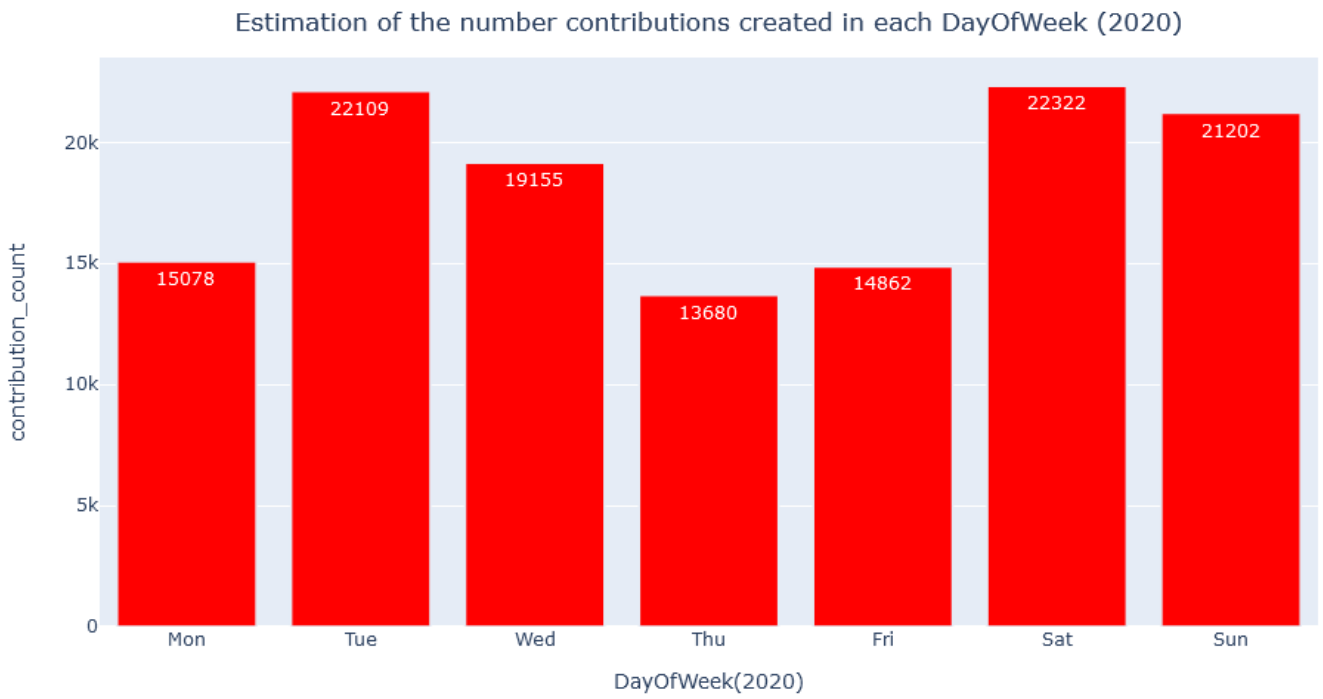


Peak Days of The Months[5]

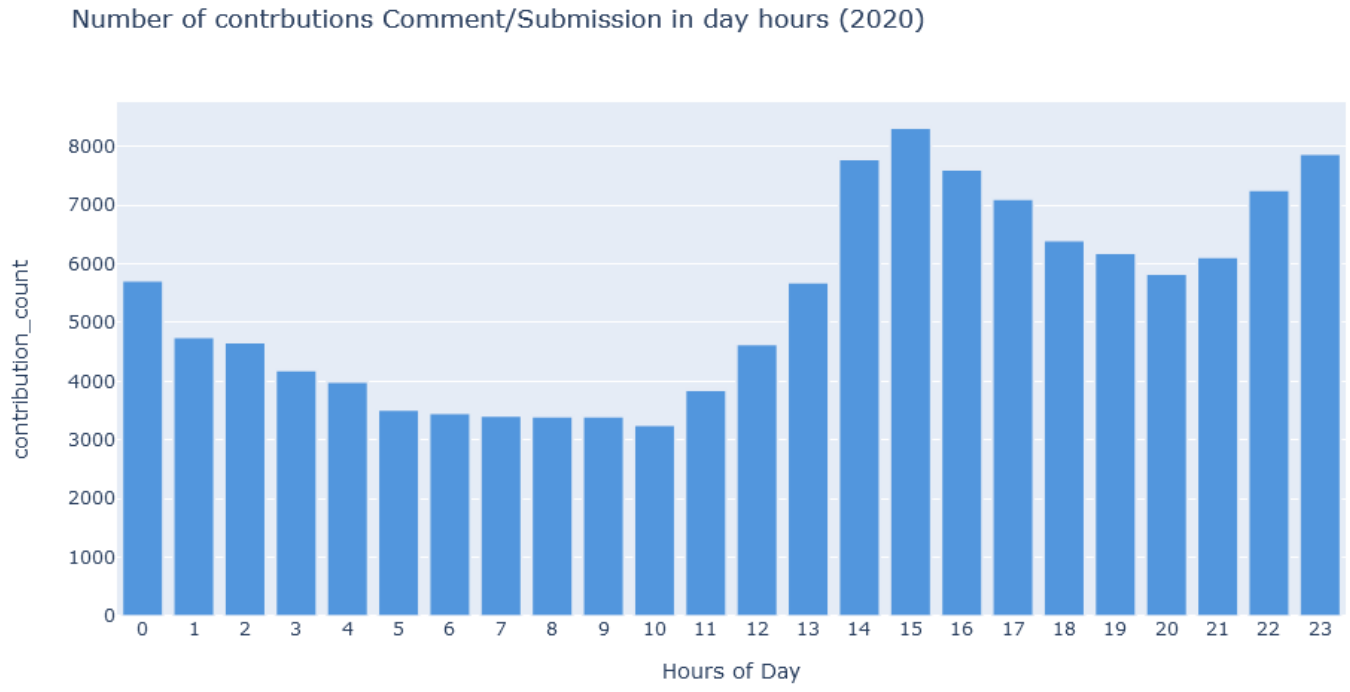


[5] Day of month means day 1 in all months, 2 in all months.. etc. (sum of all contributions on the same day of each month)

Peak Days of The Week



Peak Hours

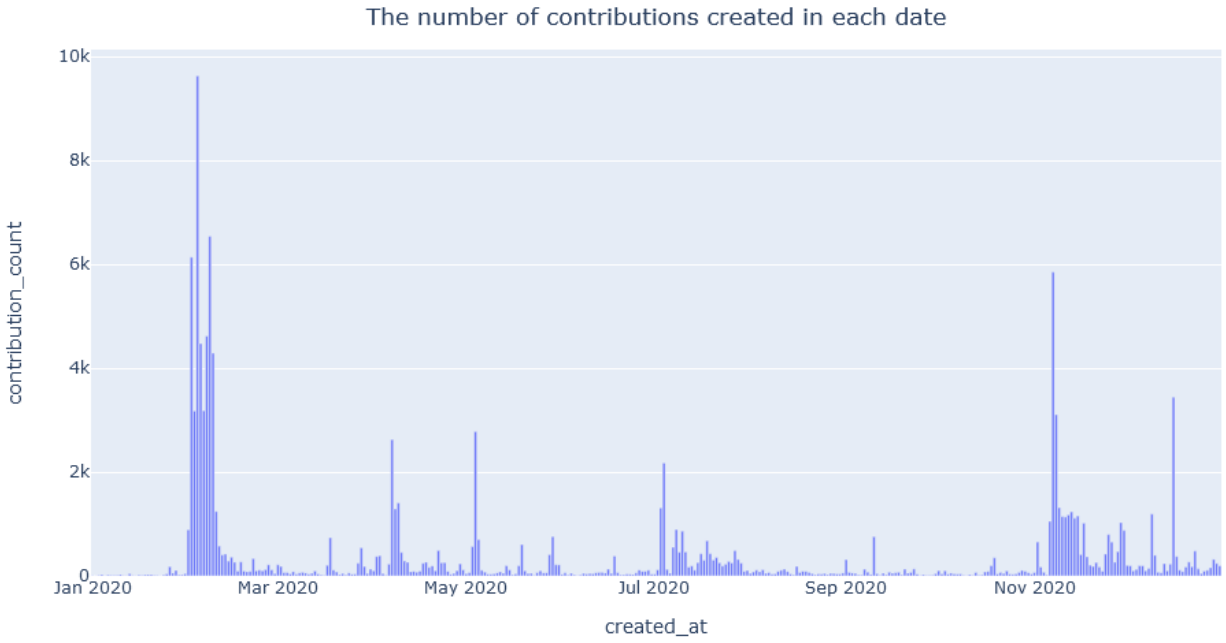


- It's weird to have high contributions all day!

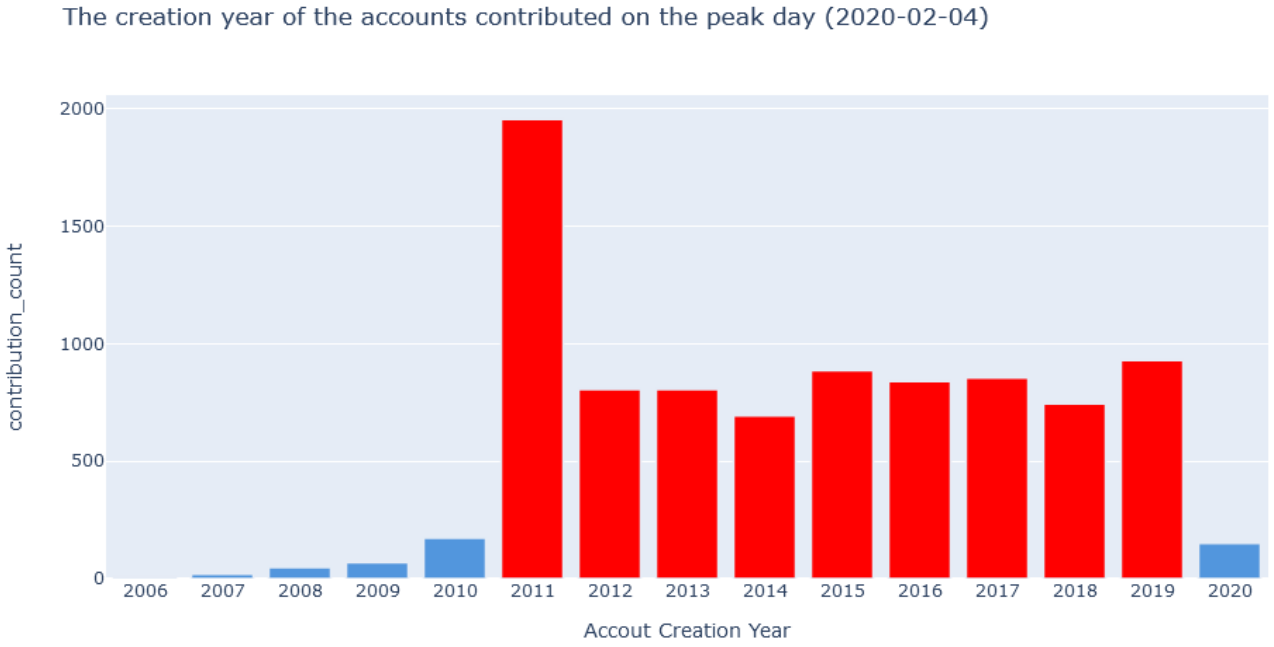
Peak Dates

In this year the peak dates are:

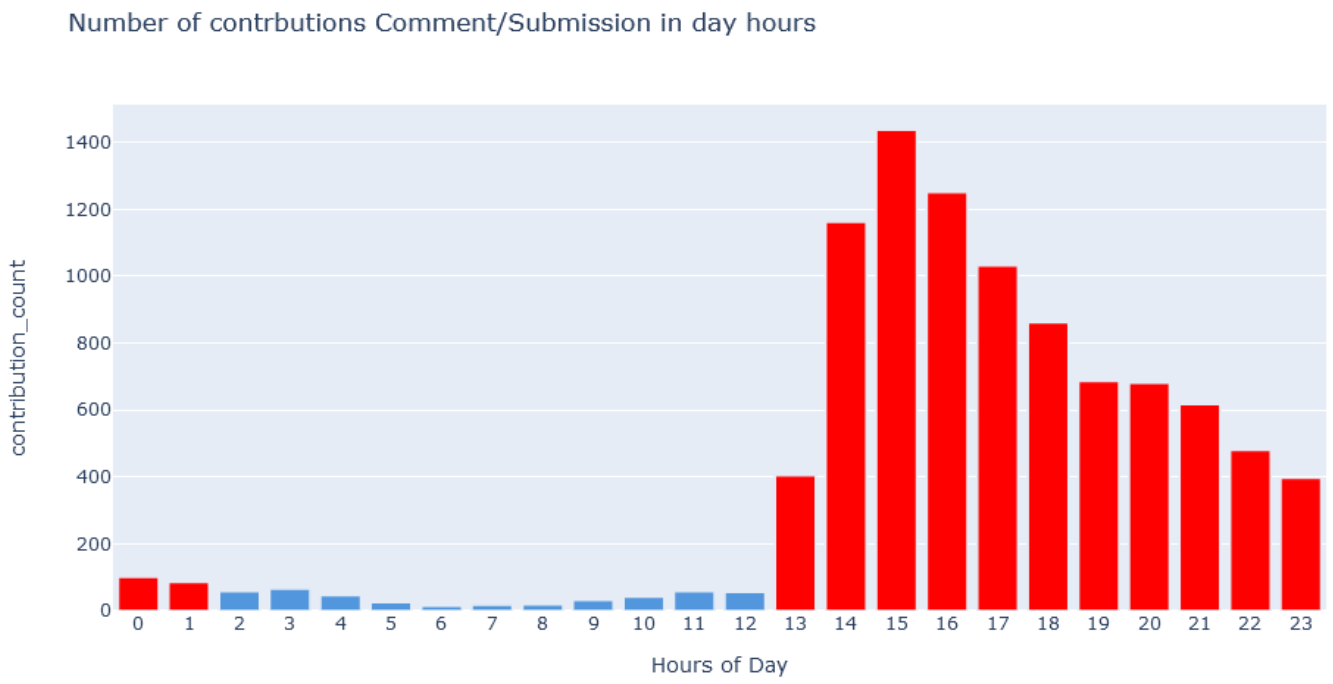
2020-02-04	9630
2020-02-08	6540
2020-02-02	6138
2020-11-07	5852
2020-02-07	4618



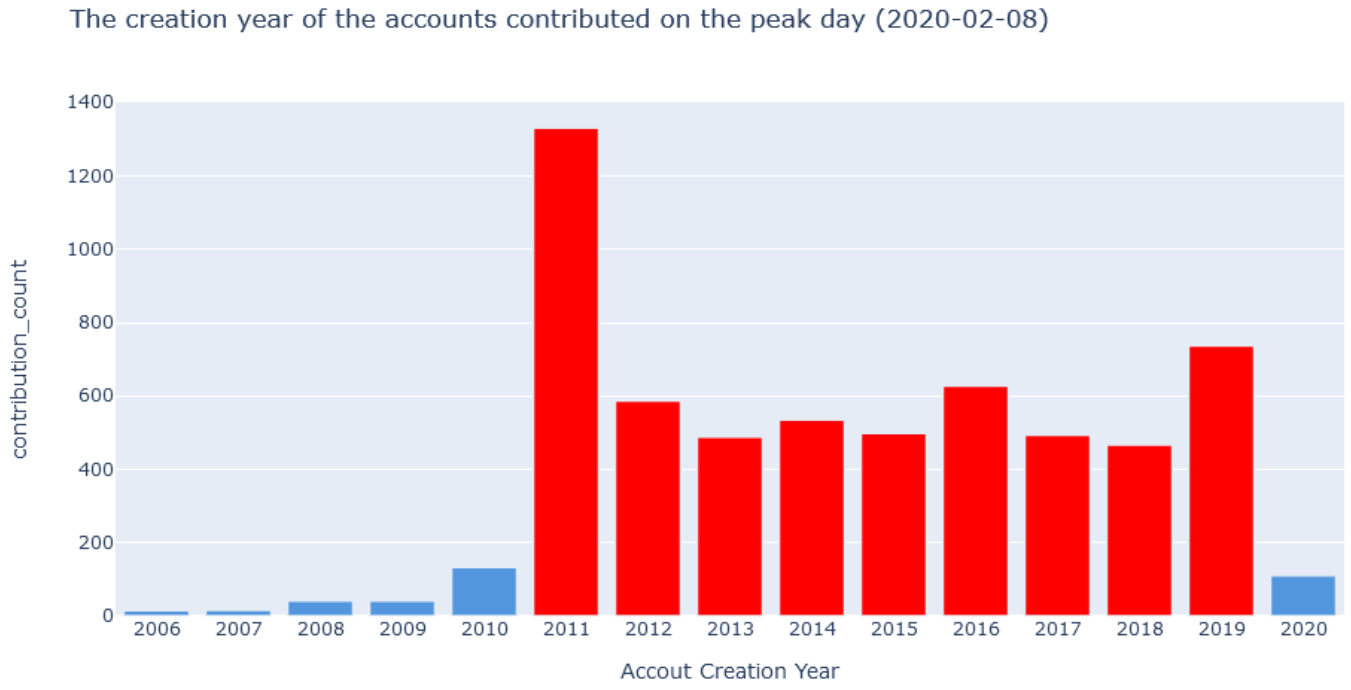
- **Feb 4,2020.**
    - **9630 contributions** were made by **4752 users**.



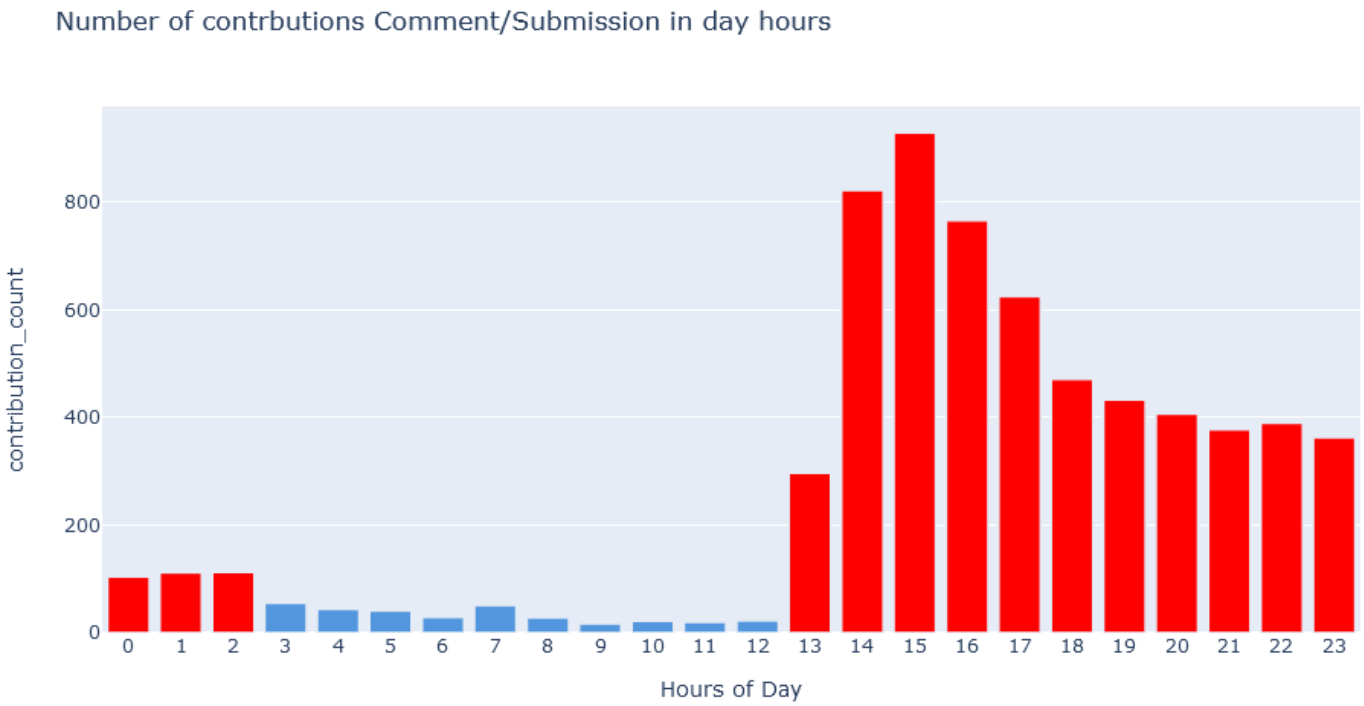
- The most active hours (13:1).



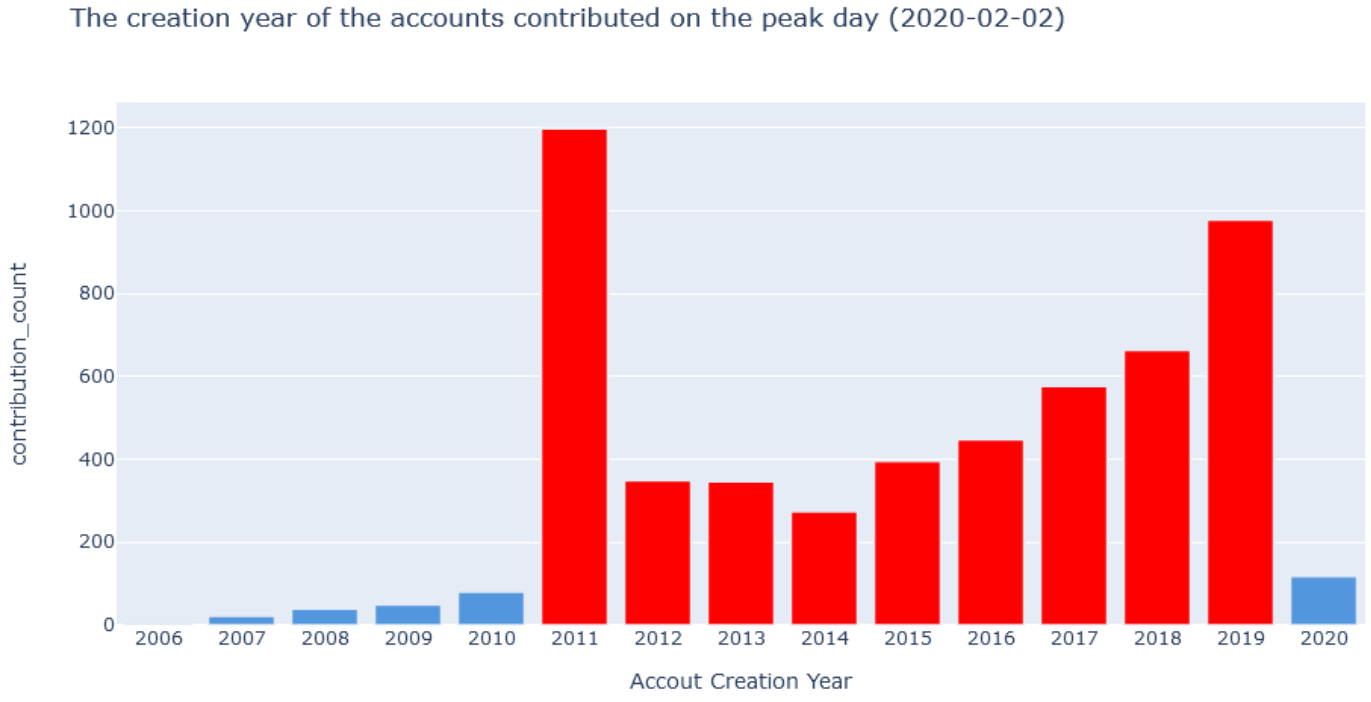
- **Feb 8,2020.**
  - **6540 contributions** were made by **3442 users**.

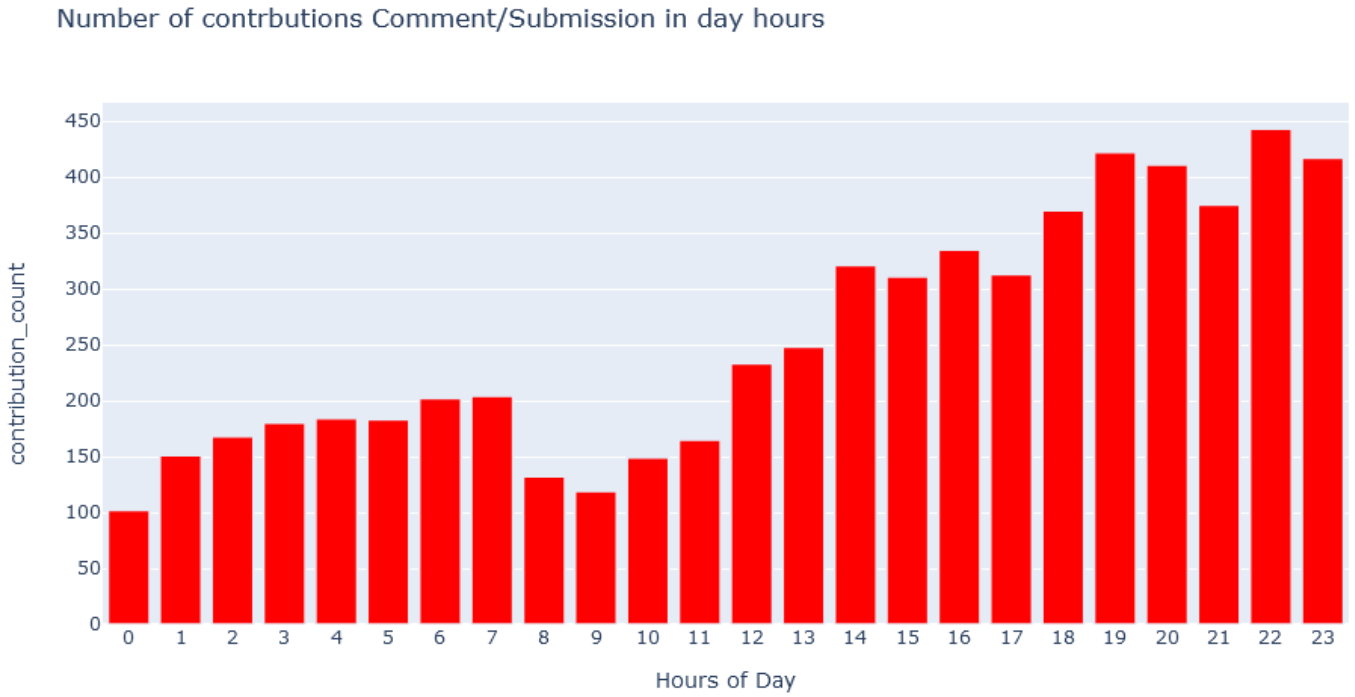


- The most active hours (13:2).



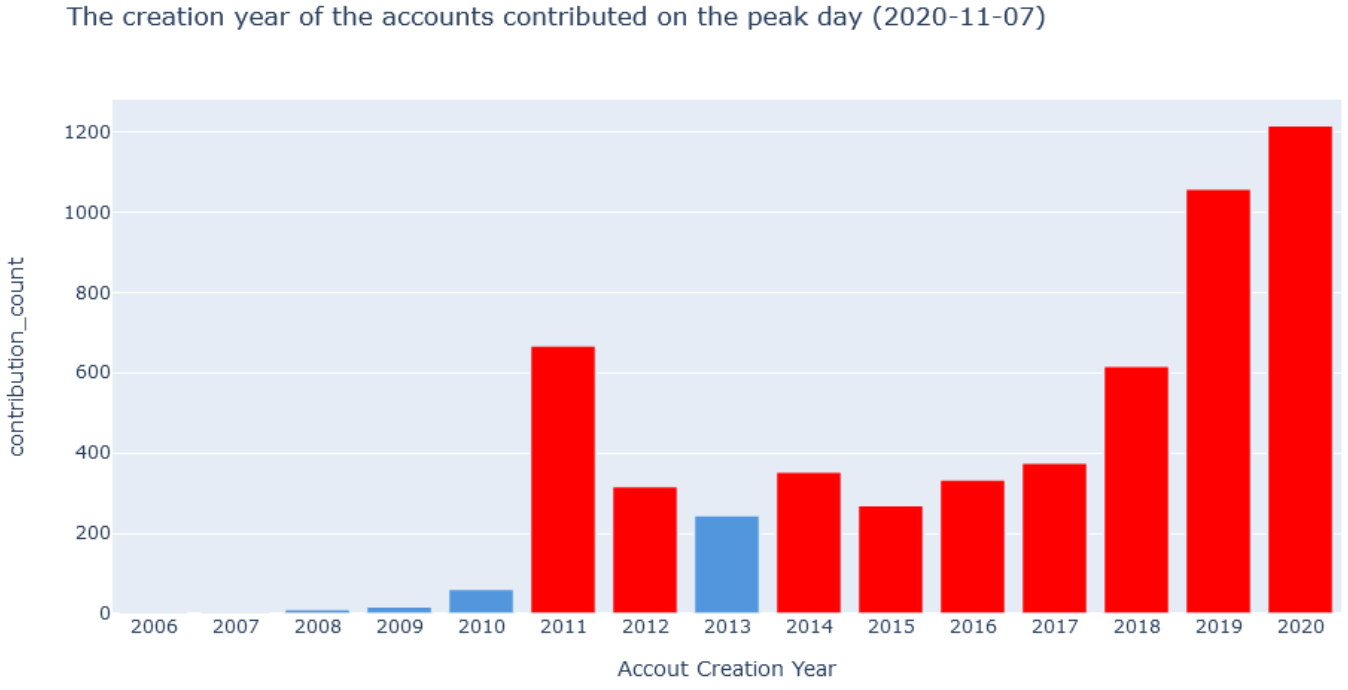
- **Feb 2,2020.**
  - **6138 contributions** were made by **3145 users**.

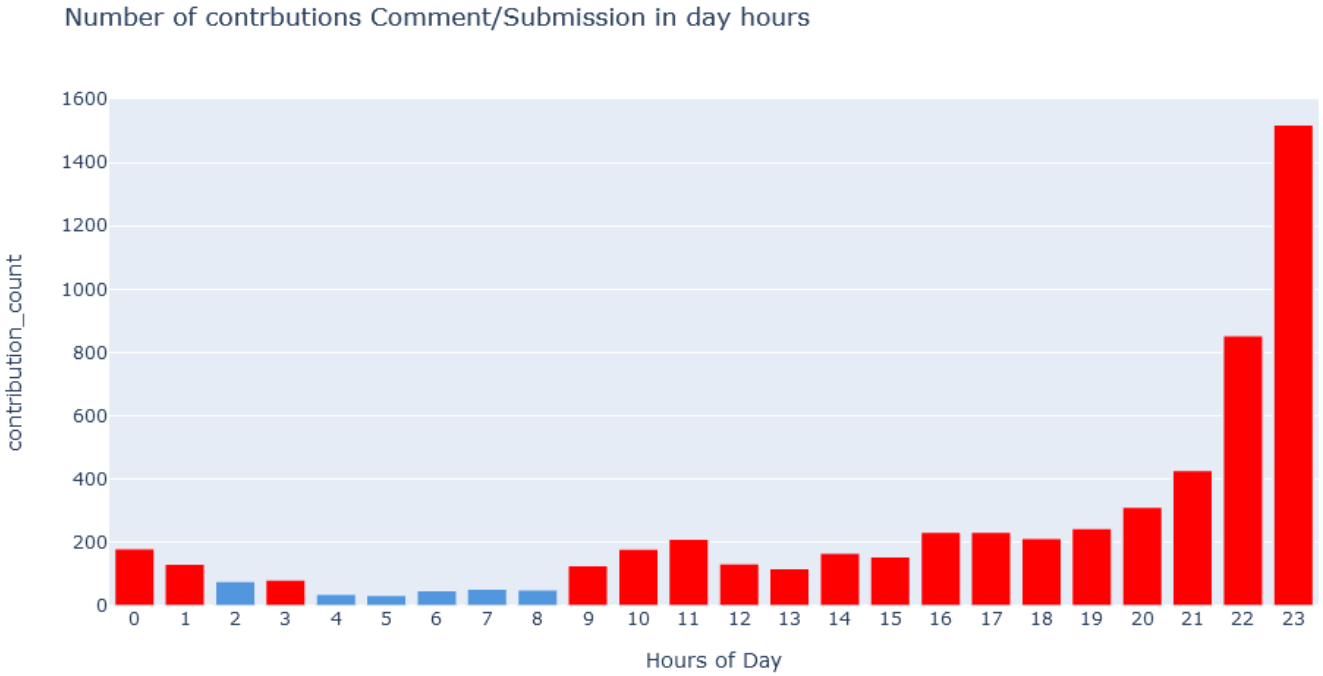




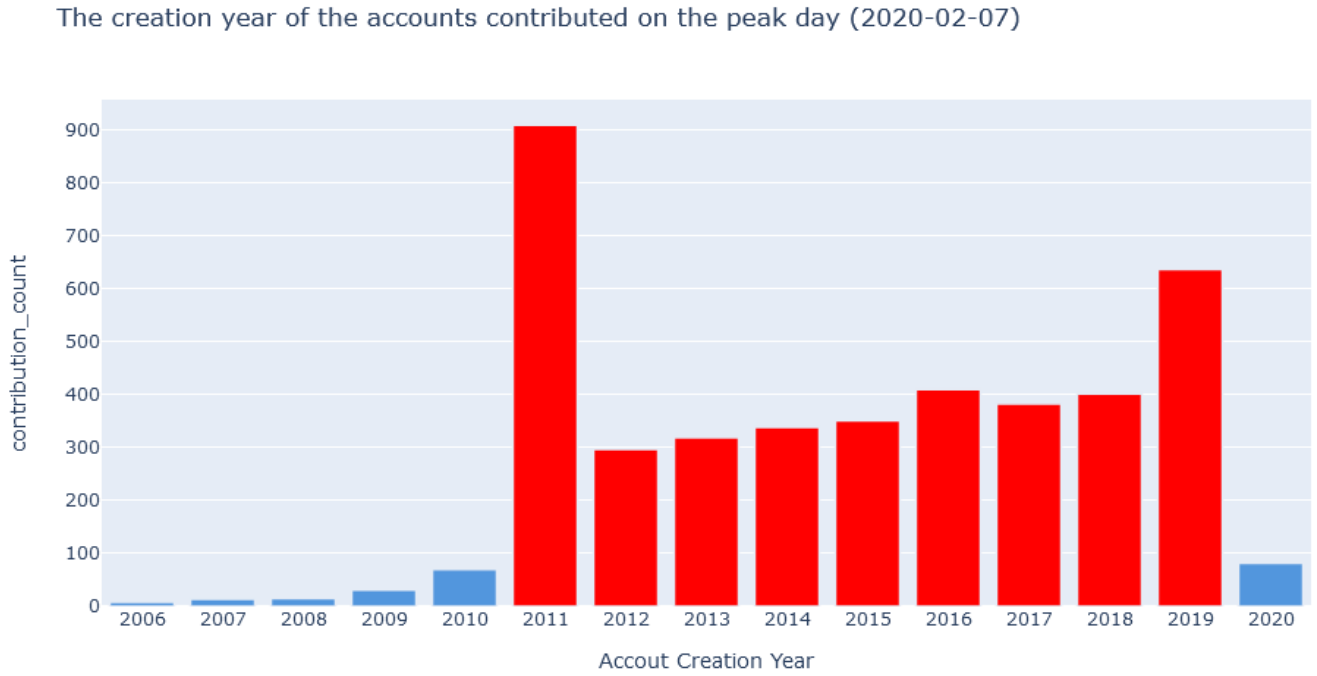
- All hours active?

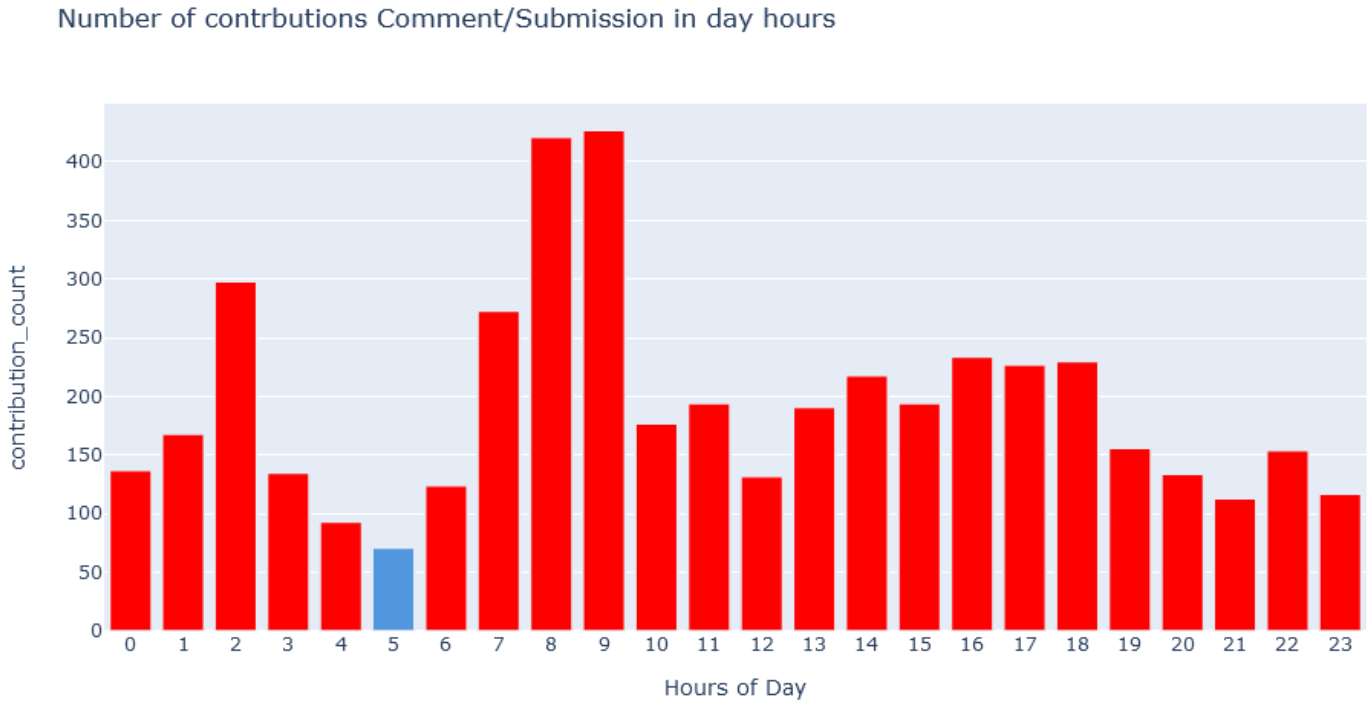
- **Nov 7,2020.**
    - **5852 contributions** were made by **3550 users**.





- **Feb 7,2020.**
    - **4618 contributions** were made by **2395 users**.

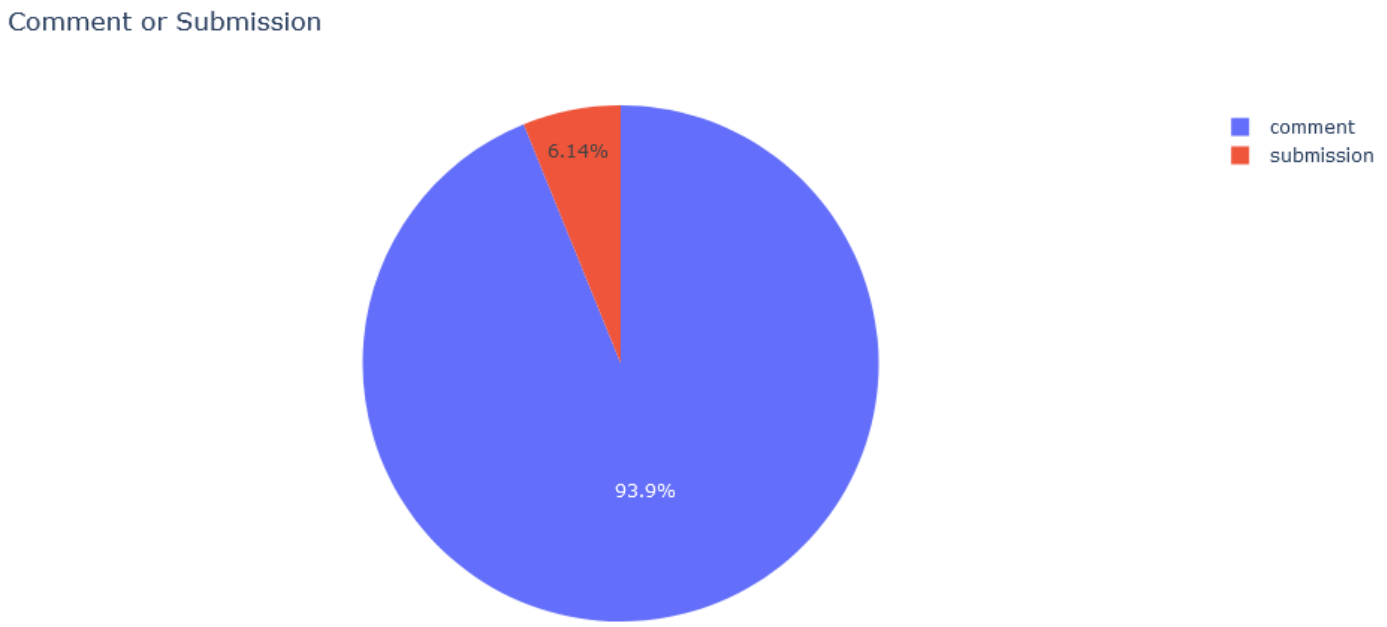


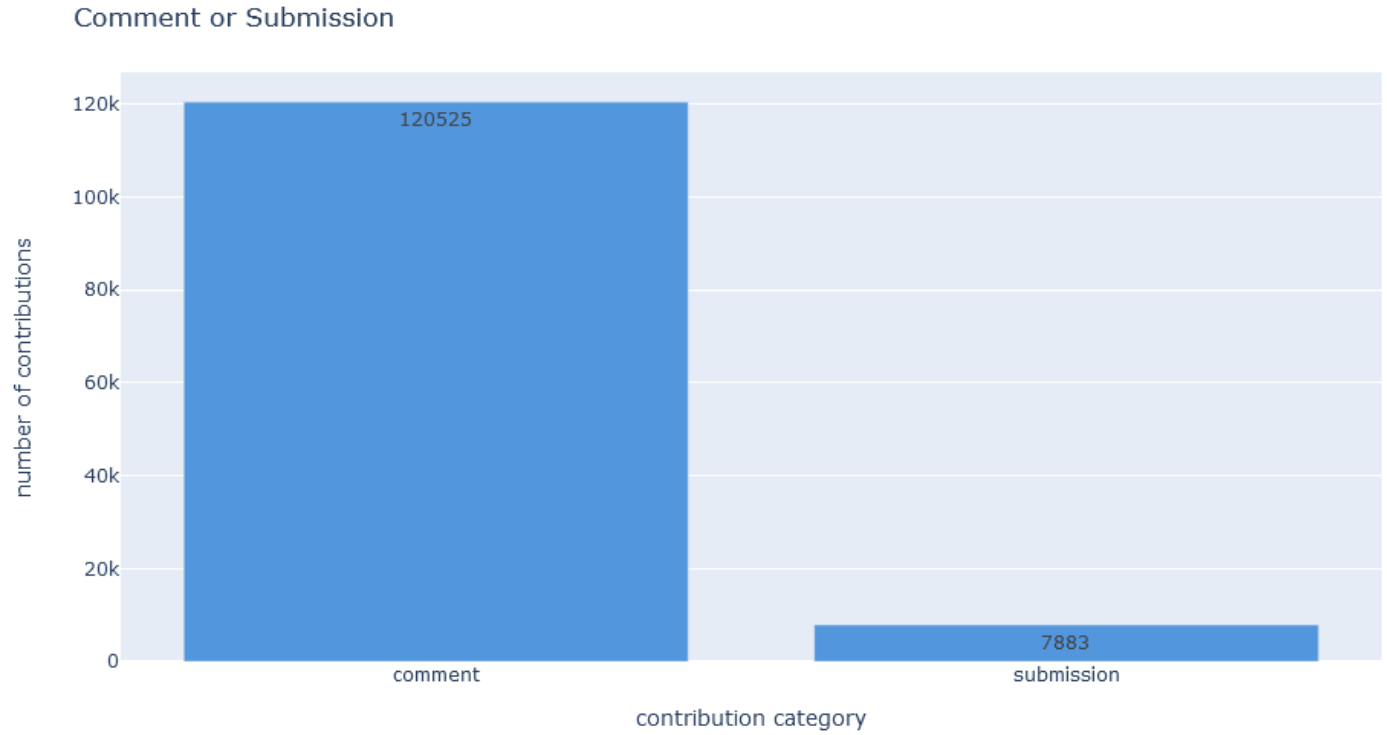

Number of contrbutions Comment/Submission in day hours
contribution_count
0
50
100
150
200
250
300
350
400
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Hours of Day

Exploratory Data Analysis

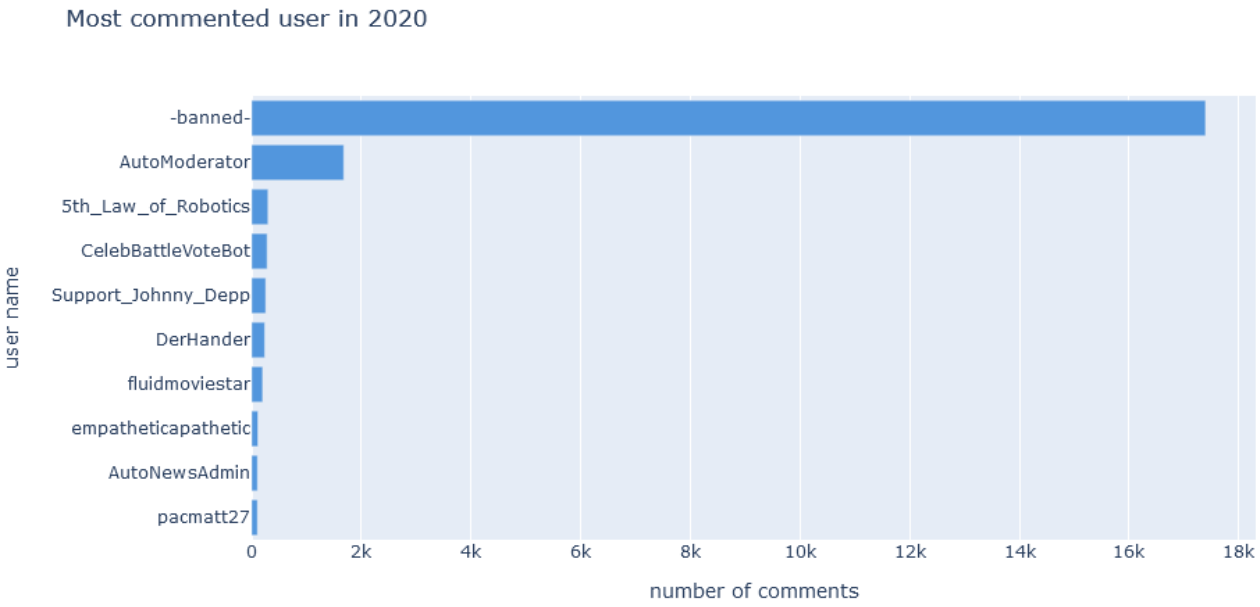
Reddit Contributions (Comments / Submissions)

The # of submissions VS the # of comments





Most contributed user



Further Investigate The Most Commented Users In 2020

AutoModerator

AutoModerator is a system built into reddit that allows moderators to define "rules" (consisting of checks and actions) to be automatically applied to posts in their subreddit.

- **Automoderator** made **298 Contributions in 2020** on those subreddits:
    - r/JerkOffToCelebs 311
    - r/Celebhub 176
    - r/memes 169
    - r/OutOfTheLoop 135
    - r/unpopularopinion 100
    - r/AskReddit 99
    - r/iamatotalpieceofshit 66
    - r/DC_Cinematic 61
    - r/CelebBattleLeague 47
    - r/Drama 31

5th_Law_of_Robotics (Negative contributions)

- **5th_Law_of_Robotics** made **298 Contributions in 2020** on those subreddits:
    - r/videos 93
    - r/MensRights 34
    - r/Egalitarianism 31
    - r/iamatotalpieceofshit 30
    - r/LeftWingMaleAdvocates 29
    - r/SRSsucks 19
    - r/agedlikemilk 14
    - r/Toxic_Femininity 8
    - r/entertainment 8
    - r/meToo 7

Support_Johnny_Depp (Negative contributions)

- **5th_Law_of_Robotics** made **256 Contributions in 2020** on those subreddits:
    - r/entertainment 117
    - r/MensRights 39
    - r/pussypassdenied 32
    - r/videos 27
    - r/SupportForTheAccused 20
    - r/todayilearned 11
    - r/Petition 4
    - r/movies 3
    - r/beauty 1
    - r/JusticeServed 1
- Samples of contributions:

```
Johnny Depp & Amber Heard Abuse Claims: Australia's Bloody Aftermath! NEW UNCENSORED AUDIO!!
11
Johnny Depp & Amber Heard Case Update: Amber's Parents Sided With Johnny? - NEW TEXTS & EVIDENCE!! -
10
Sign the Petition: Remove Amber Heard as L'Oreal Spokesperson
8
Amber Heard & Friends: Constant Contradictions! With Friends Like These...
6
Johnny Depp & Amber Heard Abuse Claims: Amber "just lost it" so Johnny LOST A FINGER! NEW EVIDENCE!!
6
```

DerHander

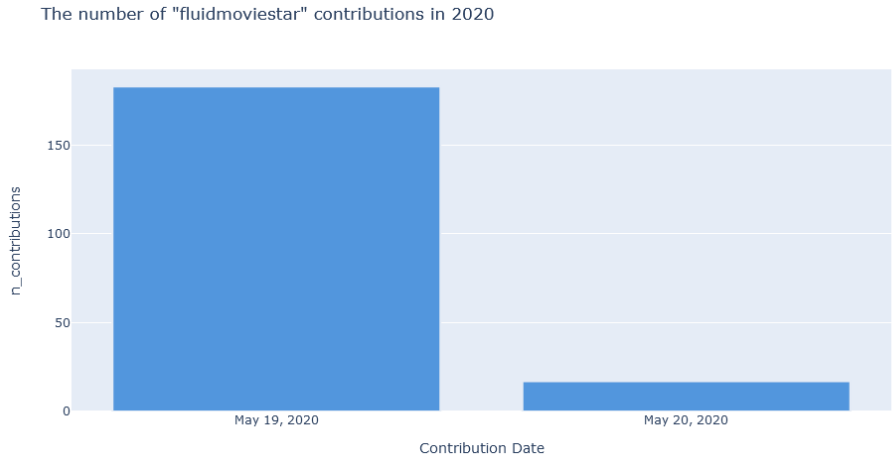
It may be a bot which aims only to remain Amber Heard on trend, most contributions contain only her name.

- This user created at 2017
- Made **237 contributions** in **2020** on those subreddits:
    - r/femcelebs 147
    - r/Blonde 21
    - r/celeb_blondes 21
    - r/FamousFaces 6
    - r/FamousBabes 6
    - r/cleavage 4
    - r/sexycelebs 4
    - r/legs 3
    - r/celeb_bellybuttons 3
    - r/CelebrityBelly 2
- **212** form 237 contains only **“Amber Heard”**

Fluidmoviestar

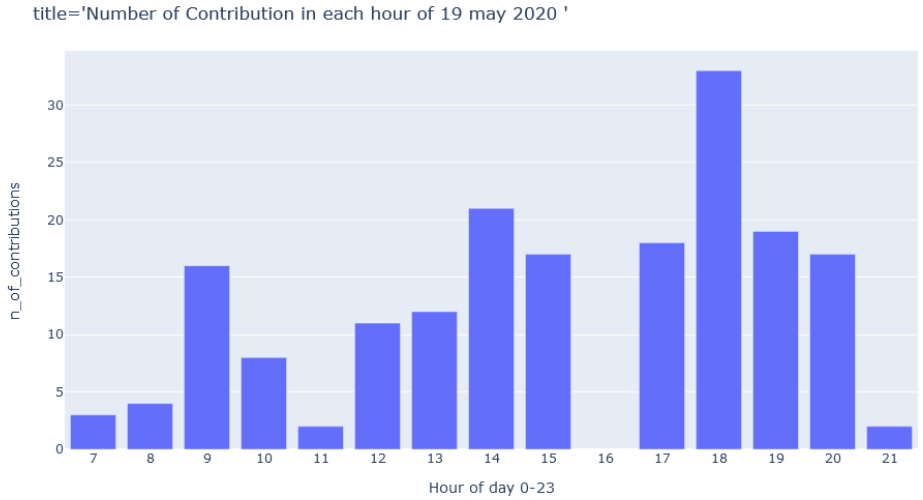
This account compares the Amber Heard case with Harvey Weinstein.

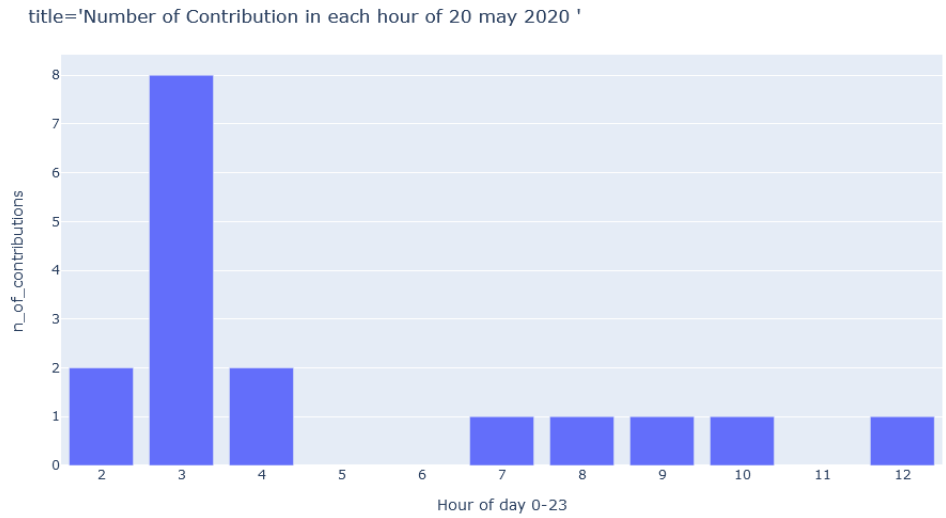
- This user created at 2015-04-30
- Made **200 contributions** in **2020** on this subreddit:
    - r/unpopularopinion 200
- **All contributions are unique.**



	created_at	n_contributions
0	2020-05-19	183
1	2020-05-20	17

- **183 contributions in only 1 day and the rest in the next day?!**





we can say that all contributions of this user were made in the same day as he started to contribute at 19 may at 7 AM and he continued till the next day morning, about 30 hours

The most recent news related to violence were last week as; – May 13: The court gives permission for Depp's former partners Vanessa Paradis and Winona Ryder – who both say Mr Depp was "never violent" to them – to give evidence. Heard's former personal assistant Kate James is also permitted to give evidence.

empatheticapathetic

Negative contributions

- Made **114 contributions** in **2020** on those subreddits:
  - r/MensRights 63
  - r/iamatotalpieceofshit 14
  - r/WeinsteinEffect 14
  - r/awfuleverything 7
  - r/pussypassdenied 5
  - r/PussyPass 4
  - r/Toxic_Femininity 3
  - r/entertainment 2
  - r/PurplePillDebate 1
  - r/JusticeForJohnnyDepp 1
- **All contributions are unique.**

AutoNewsAdmin (News bot)

- This user was created on 2016-10-27.
- Made **107 contributions** in **2020** on those subreddits:
  - r/GUARDIANauto 19
  - r/INDEPENDENTauto 17
  - r/BBCauto 11
  - r/SCMPauto 10
  - r/IOLauto 9
  - r/CHICAGOTRIBauto 9
  - r/SMHauto 7
  - r/TELEGRAPHauto 5
  - r/TORONTOSTARauto 4
  - r/IRISHTIMESauto 4
- **Samples:**

```
[World] - Johnny Depp threatened to kill me, Amber Heard tells court
2
[World] - Amber Heard denies fabricating injuries after Johnny Depp allegedly threw phone at her
2
[UK] - Johnny Depp libel trial: Amber Heard says reliving break-up was 'incredibly painful'
1
[UK] - Johnny Depp accused me of having affair with 'pumpkin-head' Leonardo DiCaprio, claims Amber Heard
1
[UK] - Amber Heard tells jury of mashed potato on door and 'blood everywhere' after alleged drink-drug rampage by Johnny De
pp    1
```

.

pacmatt27

AntiFeminism

- Made **104 contributions** in **2020** on one subreddit:
  - r/MensRights 104
- **Sample:**

```
Please do.
2
Just curious how you can identify with a movement which has essentially become a hate group?
2
```

Negative contributions

- Made **104 contributions** in **2020** on those subreddits:
  - r/entertainment 25
  - r/videos 20
  - r/WeinsteinEffect 19
  - r/AskWomen 7
  - r/television 7
  - r/unpopularopinion 5
  - r/NoStupidQuestions 4
  - r/harrypotter 3
  - r/meToo 2
  - r/CaptainSparrowmemes 2
- **All contributions are unique.**

Check whether the users with the most contributions are mod[6], gold[7] or having a verified email

- A list with **most 24 contributed authors** was made.
- Checked for the most negative comments users.
- The **most negatively commented users** are (**AutoModerator** and **faithle55**).
- Those are the **characteristics** of the 24 users:
  - **has_verified_email**
    - True 21
    - False 3
  - **is_mod**
    - False 18
    - True 6
  - **is_gold**
    - False 17
    - True 7
  - **is_banned**
    - False 20
    - True 4
  - **Comment_karma**
    - Min → - 10
    - Max → 52848
    - Mean → 3940.28
    - Median → 24
  - **Link_karma**
    - Min → 2
    - Max → 1870964
    - Mean → 218104.72
    - Median → 12119.5

[6] Moderator: A moderator is just a regular redditor like you except with a few humble duties within a particular community

[7] Gold Reddit Gold was a premium membership, which allowed Reddit users a variety of additional features.

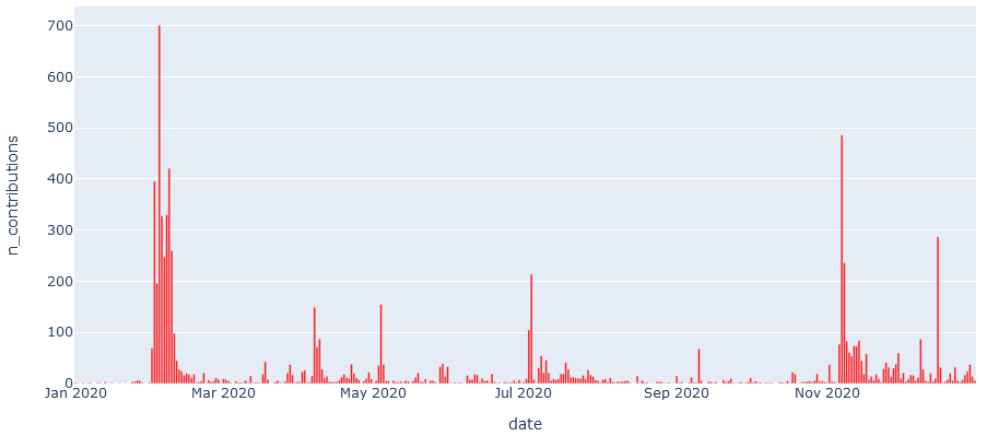
- **Banned_unverified**
  - others 17
  - banned 4
  - unverified 3

- **Creation_year**
  - others 12
  - 2019 5
  - banned 4
  - 2018 2
  - 2020 1

Investigate the text column

Lets first check for the users using the word 'f*ck'

- This word is repeated 8468 times.
- 6.59% of contributions contain this word.
- Authors of these submissions having the same submission text "f*ck_amber_heard" are 52 users.
- The authors of these submissions have the same submission text (contains f*ck) 235.



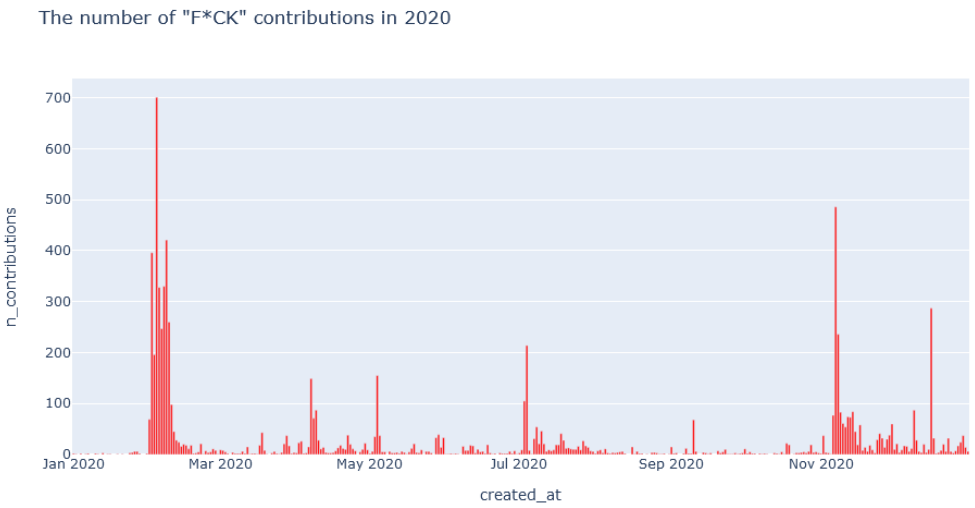
	date	n_contributions
0	2020-02-04	701
1	2020-11-07	486
2	2020-02-08	421
3	2020-02-02	396
4	2020-02-07	330
...	...	...
325	2020-03-16	1
326	2020-06-02	1
327	2020-01-02	1
328	2020-06-01	1
329	2020-10-08	1

330 rows × 2 columns

- Top Authors:
  - -banned- 929
  - cracksniffer666 20
  - pacmatt27 19
  - AutoModerator 17
  - myIDateyourEGO 15
  - king_of_red_alphas 13
  - oTHEWHITERABBIT 12
  - Ryggg95 12
  - FuckCoolDownBot2 12
  - TheWizardChrist 11

- Comment or submission:
  - comment 8130
  - submission 338
- Top subreddits
  - r/videos 1797
  - r/awfuleverything 598
  - r/entertainment 554
  - r/MensRights 525
  - r/pussypassdenied 522
  - r/JerkOffToCelebs 399
  - r/memes 351
  - r/iamatotalpieceofshit 350
  - r/TrueOffMyChest 193
  - r/AskReddit 146

	created_at	n_contributions
21	2020-02-04	701
275	2020-11-07	486
25	2020-02-08	421
19	2020-02-02	396
24	2020-02-07	330
22	2020-02-05	328
314	2020-12-16	287
26	2020-02-09	260
23	2020-02-06	247
276	2020-11-08	236



Top user who contributed with this word more investigation

cracksniffer666:

- used the word f*ck 20 times
- Negative Comments
- Has 99 contributions, 89 of them in only one day.
- 13 contributions made in 10-02-202 contains f*ck word.

	created_at	n_contributions
0	2020-02-09	1
1	2020-02-10	89
2	2020-07-03	6
3	2020-07-04	3

	user_name	has_verified_email	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year
68387	cracksniffer666	True	True	True	True	NaN	NaN	NaT	banned	banned

- Samples of submission of this user:

```
Amber Heard, preparing to frame Johnny Depp, 2017
She cut off his finger, shit in his bed, and would paint bruises on herself to claim abuse from him. A piece of shit. Soc
iety is still defending her also.
Explain
That's pathetic
Username checks out. No. No we can't.
Yeah haha
The media is still praising her. Don't believe what you hear. There's still people defending her also. Listen to the ther
apy tapes... That's all I'll tell you
Preach.
You're a misogynist for thinking she should be treated as a man would. What world do you live in? EQUALITY.
Yeah, search anywhere for like 5 mins
Username checks out, once again. Women are more than 5 times more likely to defend and protect women, no matter the cost,
what the woman did, etc. Here's an actual study for you! https://www.apa.org/monitor/dec04/women
Yeah, we have to work sex into it somehow, I forgot reddit obsessed about mating... lol jesus.. Get a hobby
google her name. Simply.
```

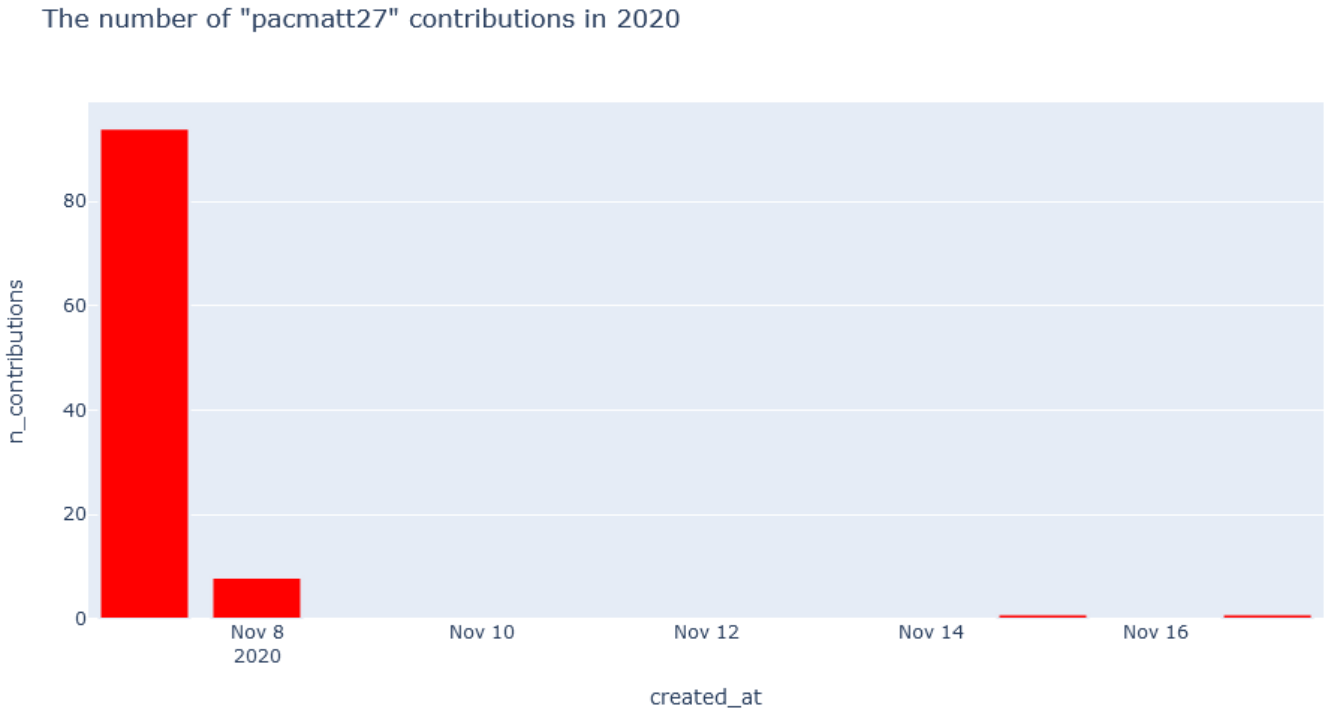
pacmatt27:

- used the word f*ck 19 times
- Negative Comments
- Has 104 contributions, 94 of them in only one day.
- Created at:2014-02-08.

	created_at	n_contributions
0	2020-11-07	94
1	2020-11-08	8
2	2020-11-15	1
3	2020-11-17	1

	user_name	has_verified_email	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year
12865	pacmatt27	True	False	False	False	36552.0	1632.0	2014-02-08 15:05:44	others	others

- used the word f*ck in 12 negative comments in NOV 7 2020.



Check for the repeated text

```
[deleted]
3800
[removed]
1534
Amber Heard
958
Make sure to follow our community guidelines.\n\n**[Get user flair](https://redd.it/e0a4mn) and check out our [Instagram
page](https://www.instagram.com/celebtag) for more celebrity content!**\n\n\n*I am a bot, and this action was performed a
utomatically. Please [contact the moderators of this subreddit](/message/compose/?to=/r/Celebhub) if you have any questio
ns or concerns.*
143
Rule 9 overused. No Johny Depp or Amber Heard memes at this time\n\n*I am a bot, and this action was performed automatica
lly. Please [contact the moderators of this subreddit](/message/compose/?to=/r/memes) if you have any questions or concer
ns.*
105
```

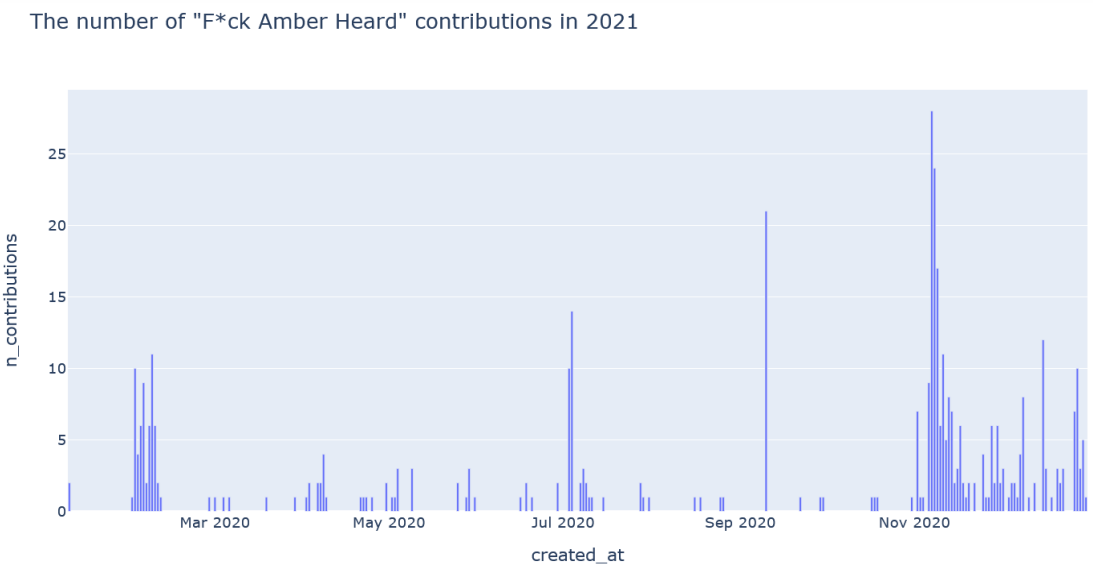
- Most contributions were deleted or removed.
- The other contributions have 'Amber Heard' which is logical.
- Also mods removed a lot of contributions as they hadn't followed the rules.
- a lot of announcements so that we can expect bots.
- "Amber Turd" is repeated 72 Times!!
- "Fuck Amber Heard" repeated 62 Times and 30 also after normalization (more than 100 times)!!
- "Amber Heard bad" repeated more than 24 Times!!

F*ck amber heard or F*ck Amber Heard

- **413** contributions (274 comments and 139 submissions) on **those subreddits:**
  - r/memes 77
  - r/awfuleverything 32
  - r/videos 22
  - r/iamatotalpieceofshit 22
  - r/dankmemes 20
  - ..

  From those **authors:**

  - -banned- 82
  - lobofett12 7
  - SlimandNone 3
  - flightfight1 3
  - Sociopathic-Panda 3
  - ..



amber heard bad

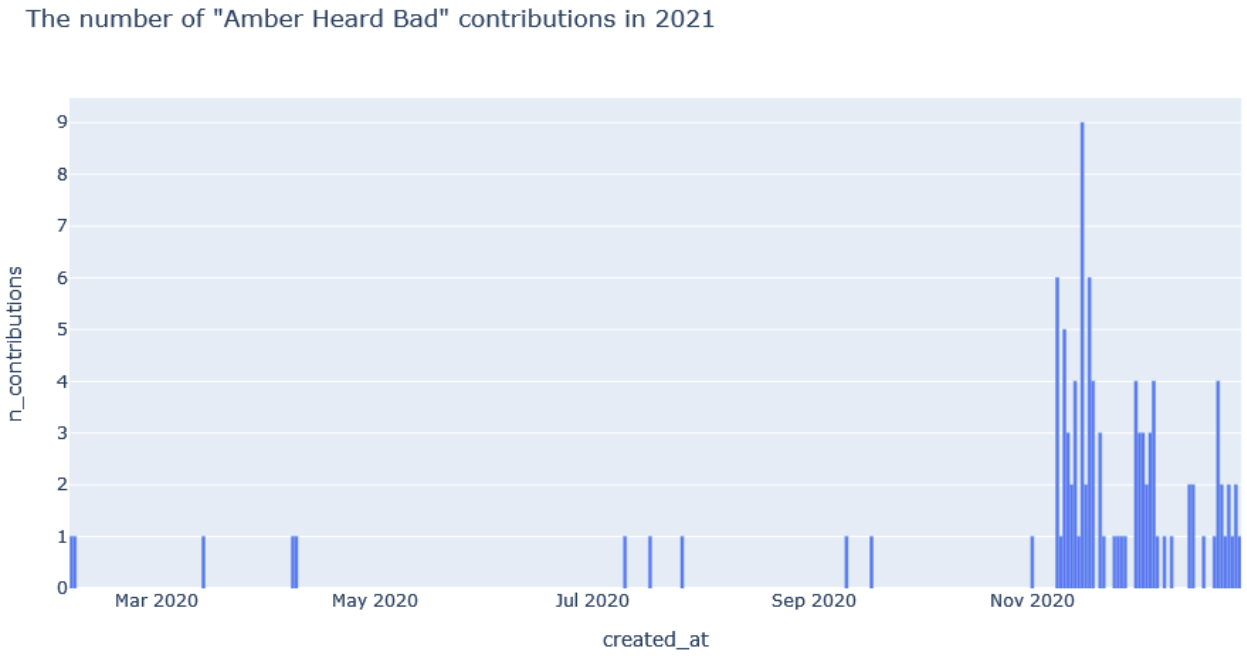
- 103 contributions
  - submission 91
  - comment 12

  in those subreddits:

  - In thosrr/memes 51
  - r/dankmemes 15
  - r/redditmoment 7
  - r/circlejerk 5
  - r/teenagers 2
  - r/CaptainSparrowmemes 2
  - r/Amber_Heard 2
  - r/MensRights 2
  - ...

From those users

- -banned- 35
- lobofett12 2
- Jozilla12 2
- Apple20674 2
- Shaved_Bears 2
- ..



Amber Turd

- 429 contributions
  - comment 418
  - submission 11

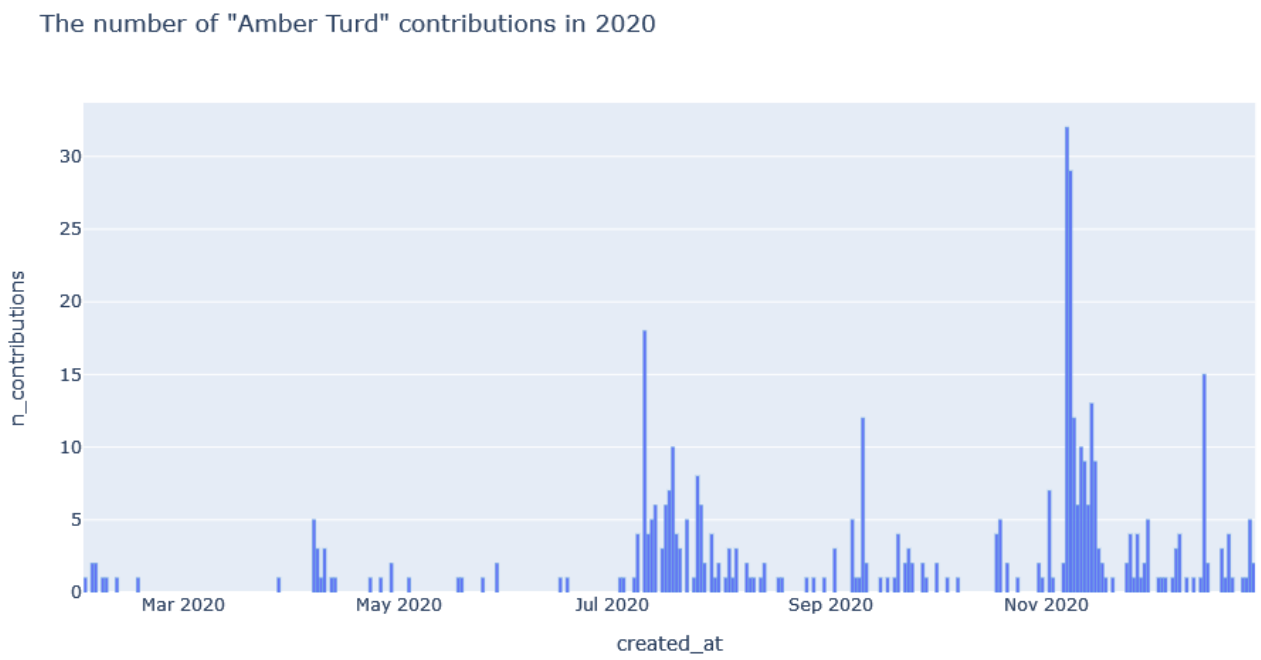
in those subreddits:

- r/memes 44
- r/MensRights 29
- r/celebnsfw 22
- r/entertainment 20
- r/pussypassdenied 19
- ..

From those users

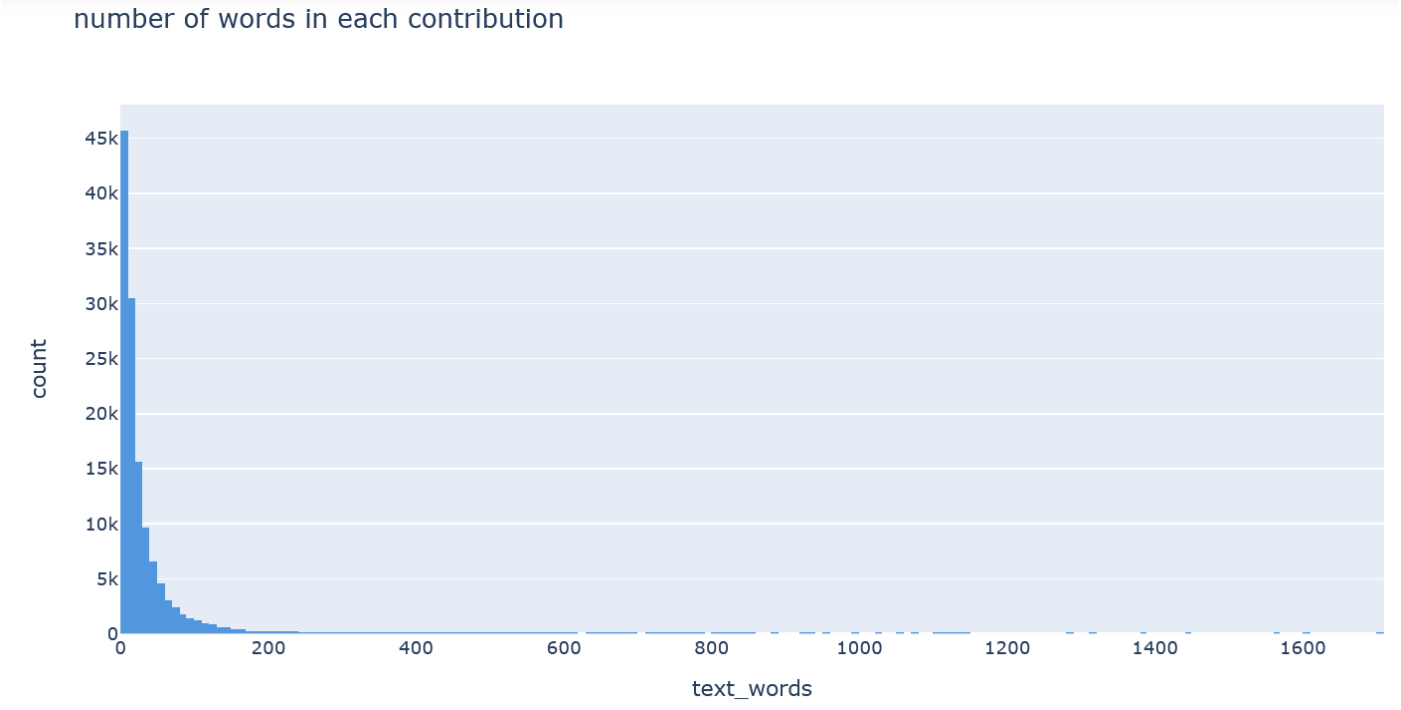
- -banned- 38
- SquidAndCheese 12
- Nayr747 5
- Jaya_shanka 4
- ginozilla1985 4

-



Check the number of text words

Of course few words are easier for bots to create.

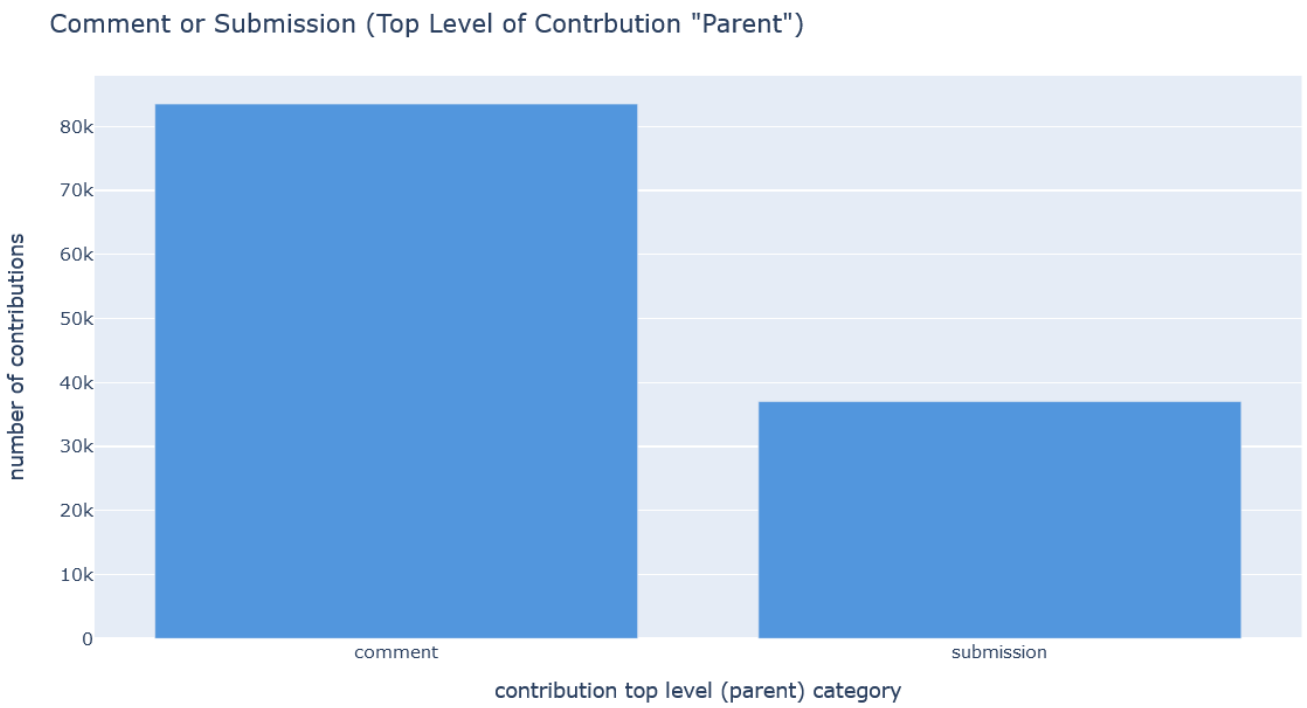


Text_words (number of words: number of contributions contains this number of words)

- 1: 10206
- 5: 4789
- 6: 4723
- 4: 4461
- 7: 4458
- ...

Reddit Comments

The number of parent comments on submissions



-This means that we have about 83K parent comments on submissions (not replies).

Reddit Submissions

Investigating the Submission Text (Submissions with the most comments and replies)

- We can get the number of different submissions by looking only at the submissions data. also we can look at submission_text with the most interactions (repeated submission_text)
- This could be either submissions with more comments and replies, or different submissions with the same text, we cannot know for sure.

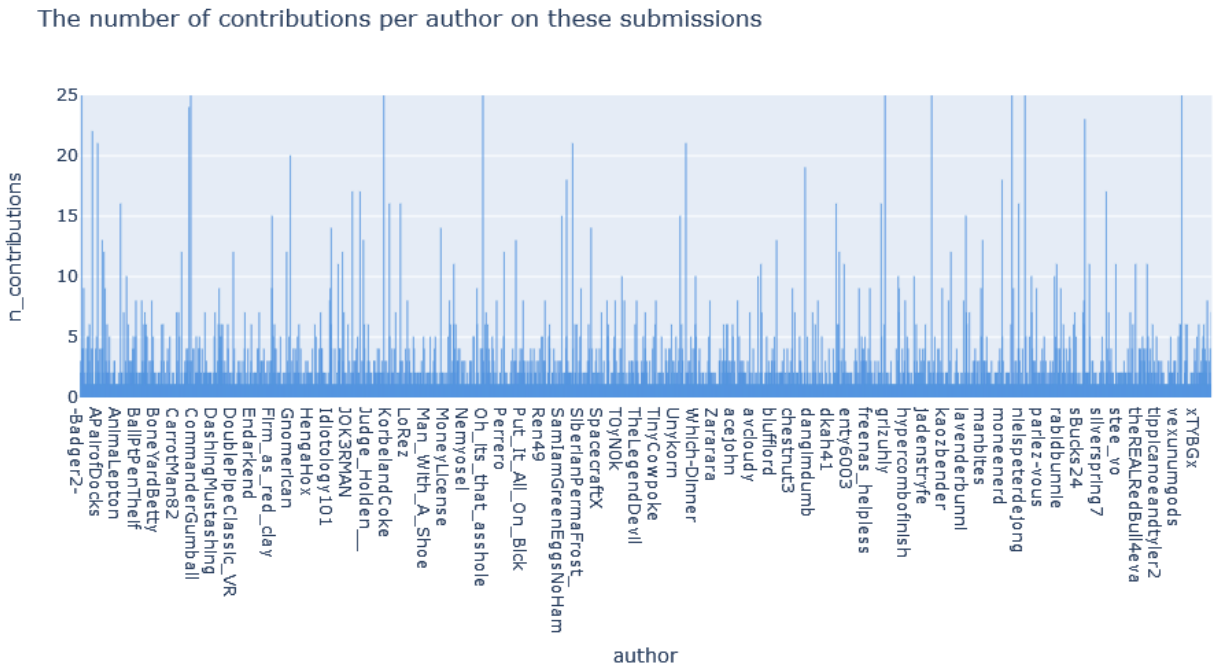
Audio_of_amber_heard_admitting_she_was_the_one

- 10 submissions.
    - From those users:

	user_name	has_verified_email	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year
3767	redditchao999	True	True	False	False	32903.0	7543.0	2011-10-30 02:01:08	others	others
5918	snoogins355	True	False	False	False	238857.0	19722.0	2012-05-27 13:57:43	others	others
18703	xool420	True	False	False	False	89122.0	94801.0	2015-06-25 13:49:35	others	others
50576	KindlyOlPornographer	True	False	False	False	157950.0	92848.0	2019-07-27 01:15:02	others	2019
52089	yespineapplebacon	True	False	False	False	1821.0	21692.0	2019-09-10 20:07:38	others	2019
57013	poop4456	False	False	False	False	130.0	138.0	2020-02-04 17:44:20	unverified	2020
67607	waifulvr94	True	True	True	True	NaN	NaN	NaT	banned	banned

    - In those subreddits:
        - r/videos
        - r/MensRights
        - r/TwoXChromosomes
        - r/Feminism
        - r/blankies
        - r/BillBurr
        - r/movies
        - r/Feminism
        - r/MensRights
        - r/videos

    Those submissions contain 9562 comments.



	author	n_contributions
8	-banned-	1218
4582	waitingtodiesoon	46
461	ClementineCarson	45
3348	gorgossia	34
1264	KindlyOlPornographer	30
...	...	...
1854	QwertyBoi321	1
1855	R-Van	1
1856	R4K1B-	1
1857	R4nd0m235689	1
2354	The_Billy_Dee	1

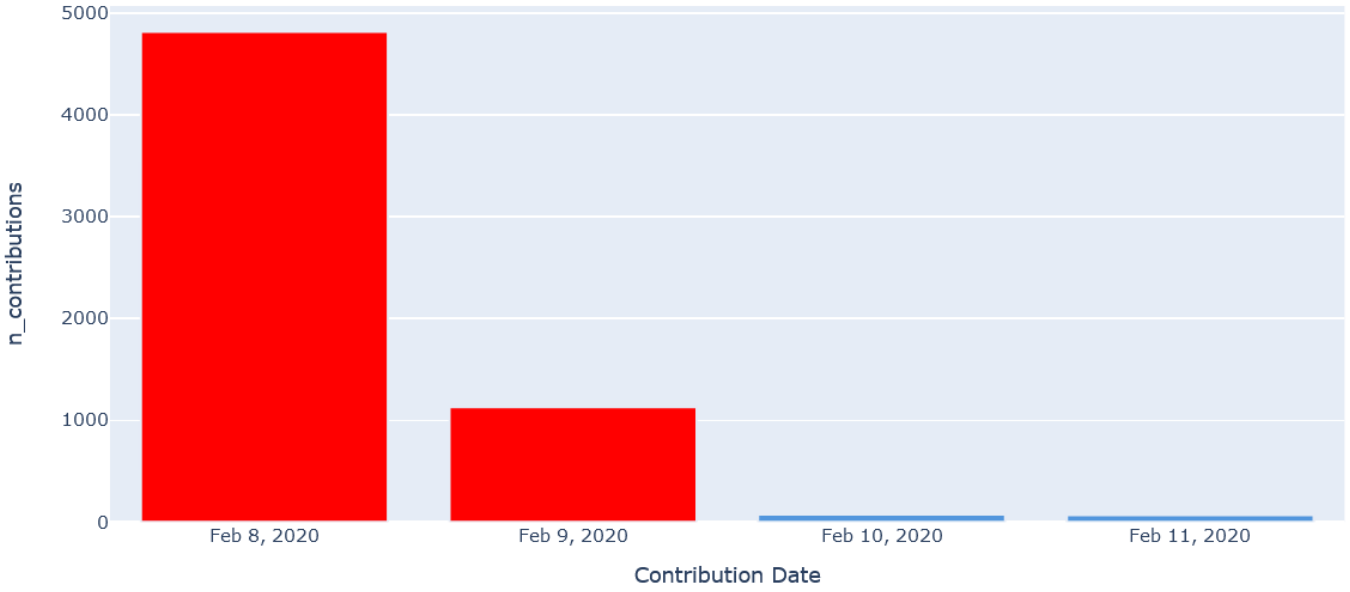
Johnny_depp_amber_heard_new_unsensored_audio

- 6 Different Submissions.
- all posts have the same video.
- those submissions were archived
- From those users:

	user_name	has_verified_email	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year
13464	Ethernetbabe	True	True	False	False	24276.0	95091.0	2014-04-05 13:36:07	others	others
39549	Alexexec	True	True	False	False	43154.0	5363.0	2018-08-27 07:43:54	others	2018
49304	HWGA_Gallifrey	False	False	False	False	74419.0	928.0	2019-06-17 00:09:27	unverified	2019
49870	EpixBubble	True	True	False	False	1196.0	13592.0	2019-07-05 12:02:43	others	2019
67607	waifulvr94	True	True	True	True	NaN	NaN	NaT	banned	banned

- Those submissions have 6218 comments.

The number of contributions/date on these submissions



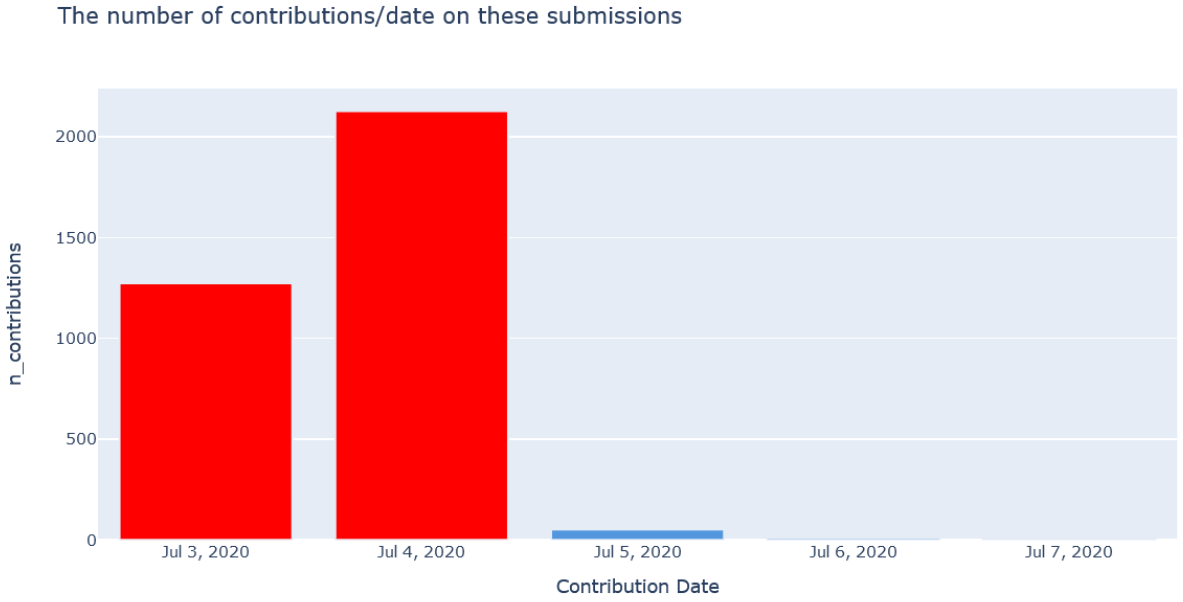
The number of contributions per author on these submissions

	author	n_contributions
5	-banned-	823
2009	controlandr3sistanc3	80
1212	PraiseSatsuki	64
2063	demonicneon	51
768	JagTror	36
...	...	...
1177	Pengroves	1
1178	Penla	1
1181	PerfectZeong	1
1182	Petdogdavid1	1
3099	zyzzogeton	1

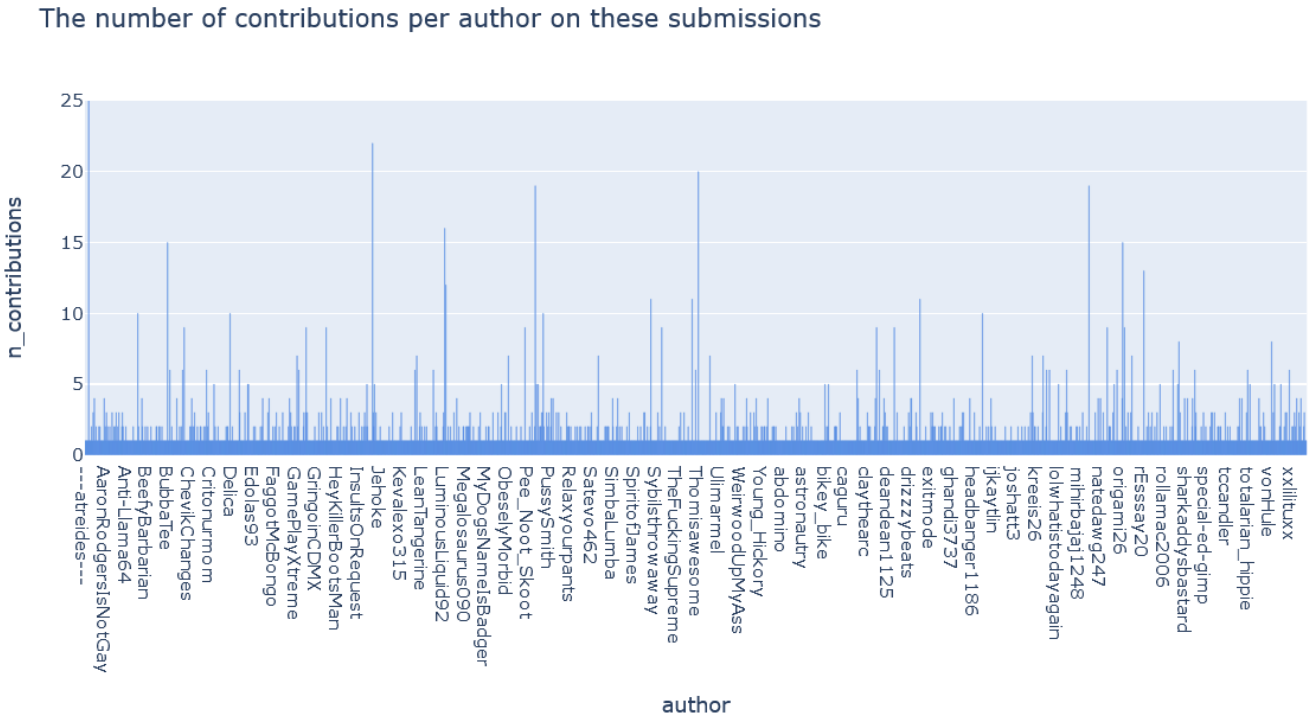
	user_name	has_verified_email	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year
68053	controlandr3sistanc3	True	True	True	True	NaN	NaN	NaT	banned	banned

jand_he_lost_his_job_after_all_of_this_fuck_amber

- 5submissions.
  - From those users ('-banned-', 'beanzzzzzzzzzss', 'koppleberg', 'Ford456fgfd', 'Ford456fgfd').
- https://www.reddit.com/r/awfuleverything/comments/hkp7lo/and_he_lost_his_job_after_all_of_this_fuck_amber/
- It's sensitive content related to the cut finger
- Those submissions have 3568 contributions.

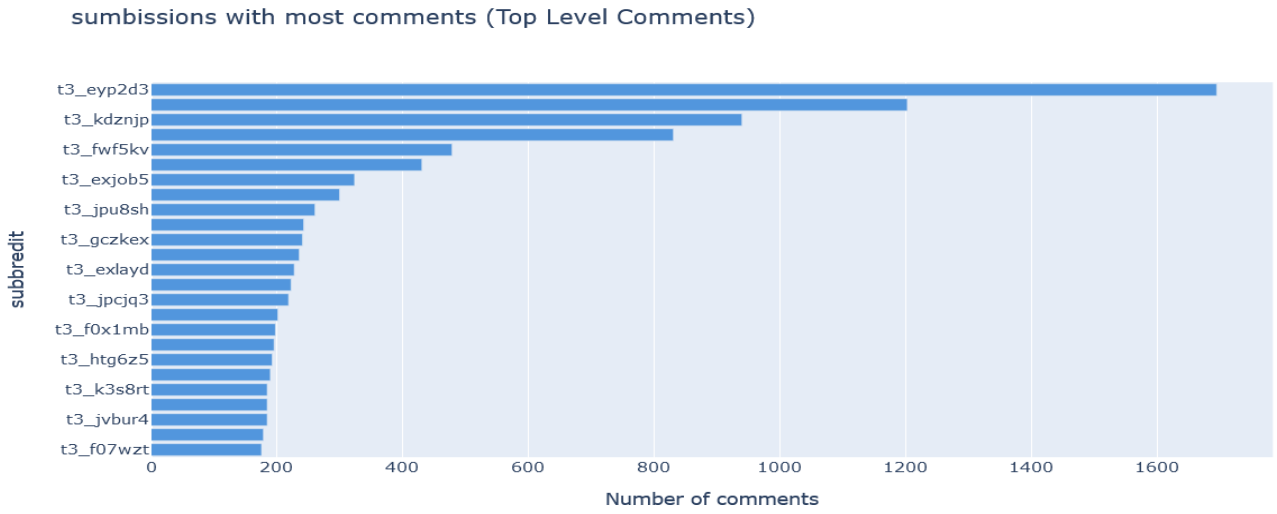


  - Those contributions were in 3 and 4 July



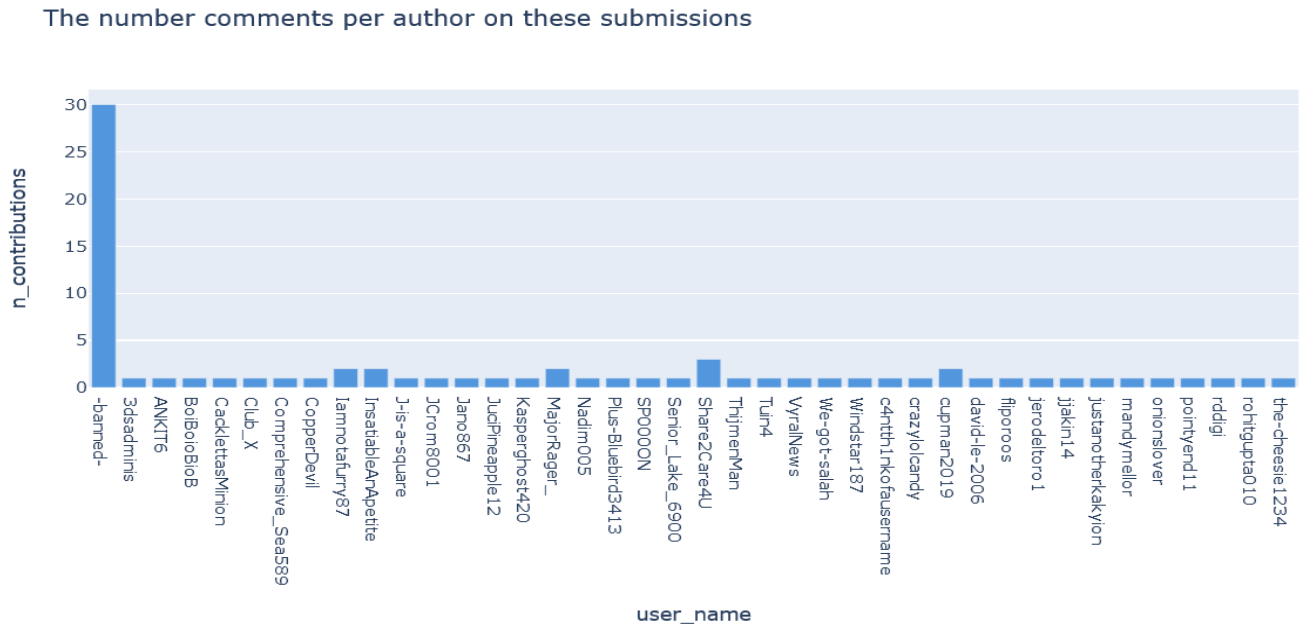
Investigating the submissions with most comments(Top Level Comments)

- t3_eyp2d3 1695
- t3_f0q0ao 1203
- t3_kdznjp 940
- t3_hkp7lo 831
- t3_fwf5kv 479

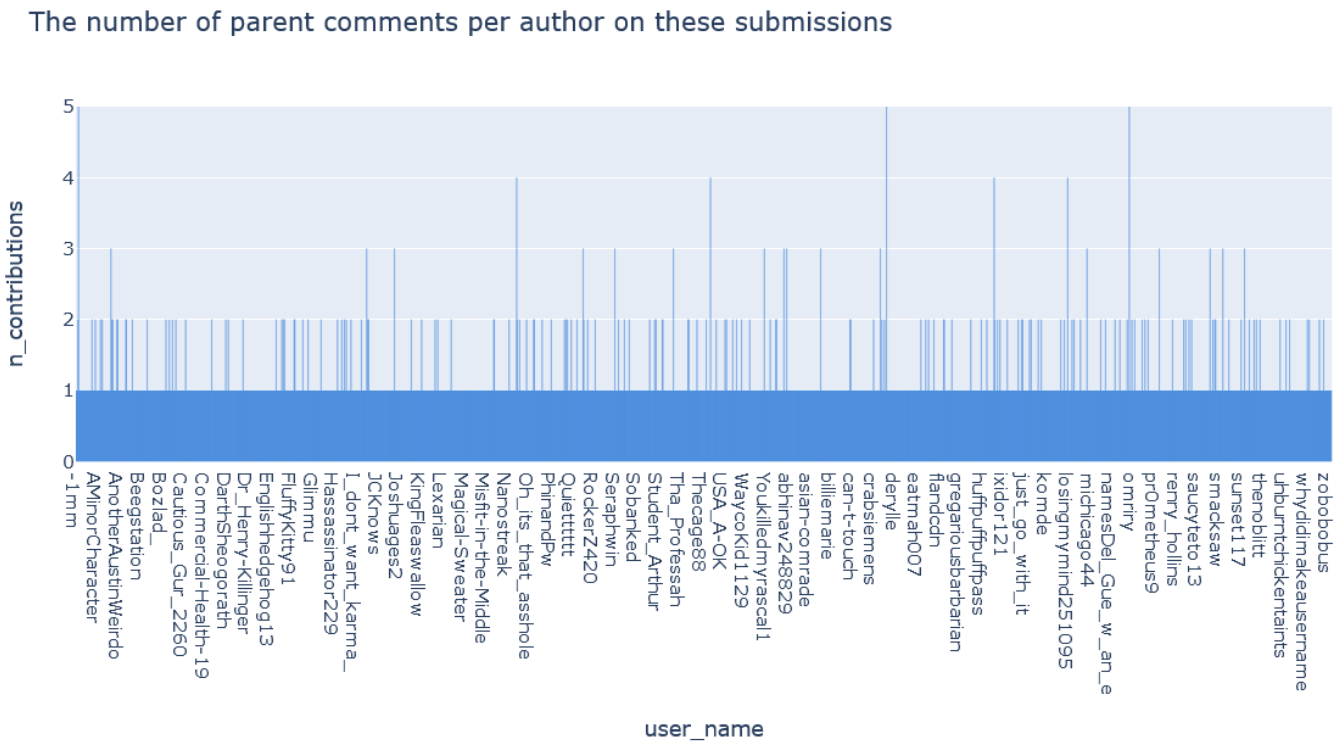


Check the top 5 submissions in 2020

- And he lost his job after all of this. Fuck Amber Heard.
- Audio of Amber Heard admitting she was the one who was abusive towards Johnny Depp.
- Amber Heard Could Face 3 Years Of Imprisonment If Found Guilty Of Faking Evidence
- Johnny Depp & Amber Heard: NEW Unsensored Audio - Amber tells Depp nobody will believe him, and also admit to drawing wounds on erself with makeup and taking pictures of them for proof.
- Amber Heard hired for $33,000 per talk in domestic abuse, despite evidence suggesting she herself is a domestic abuser.



Check the authors of parent comments

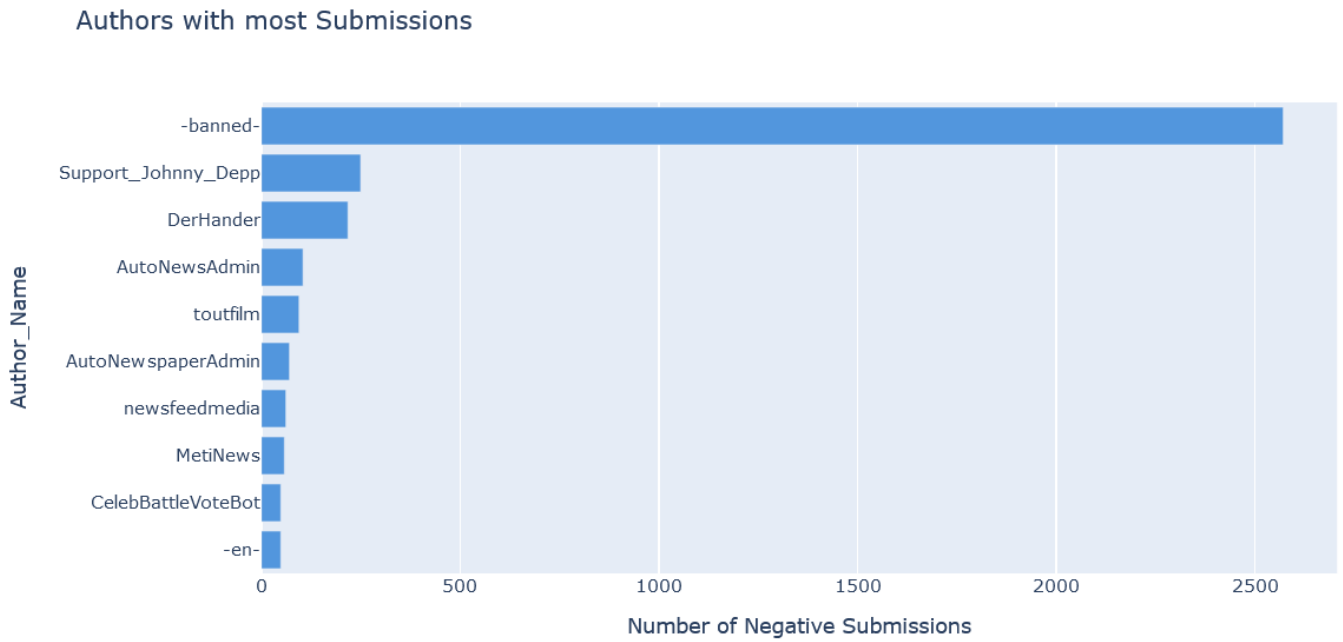


Investigating authors with the most submissions

Investigate authors with the most submissions

- -banned- 2571
- Support_Johnny_Depp 250
- DerHander 218
- AutoNewsAdmin 105
- toutfilm 95
- AutoNewspaperAdmin 71
- newsfeedmedia 62
- MetiNews 58
- CelebBattleVoteBot 49
- -en- 49

	author
-banned-	2571
Support_Johnny_Depp	250
DerHander	218
AutoNewsAdmin	105
toutfilm	95
AutoNewspaperAdmin	71
newsfeedmedia	62
MetiNews	58
CelebBattleVoteBot	49
-en-	49



Check whether the users with the most submissions are mod, gold or having a verified email

- -banned- 2571
- Support_Johnny_Depp 250
- DerHander 218
- AutoNewsAdmin 105
- toutfilm 95

most negative-comments users

	user_name	has_verified_email	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year
13888	Dannig178	True	True	True	False	2765.0	982410.0	2014-05-14 14:35:40	others	others
16745	TheAndredal	True	True	True	False	52848.0	1870964.0	2015-01-10 04:20:02	others	others

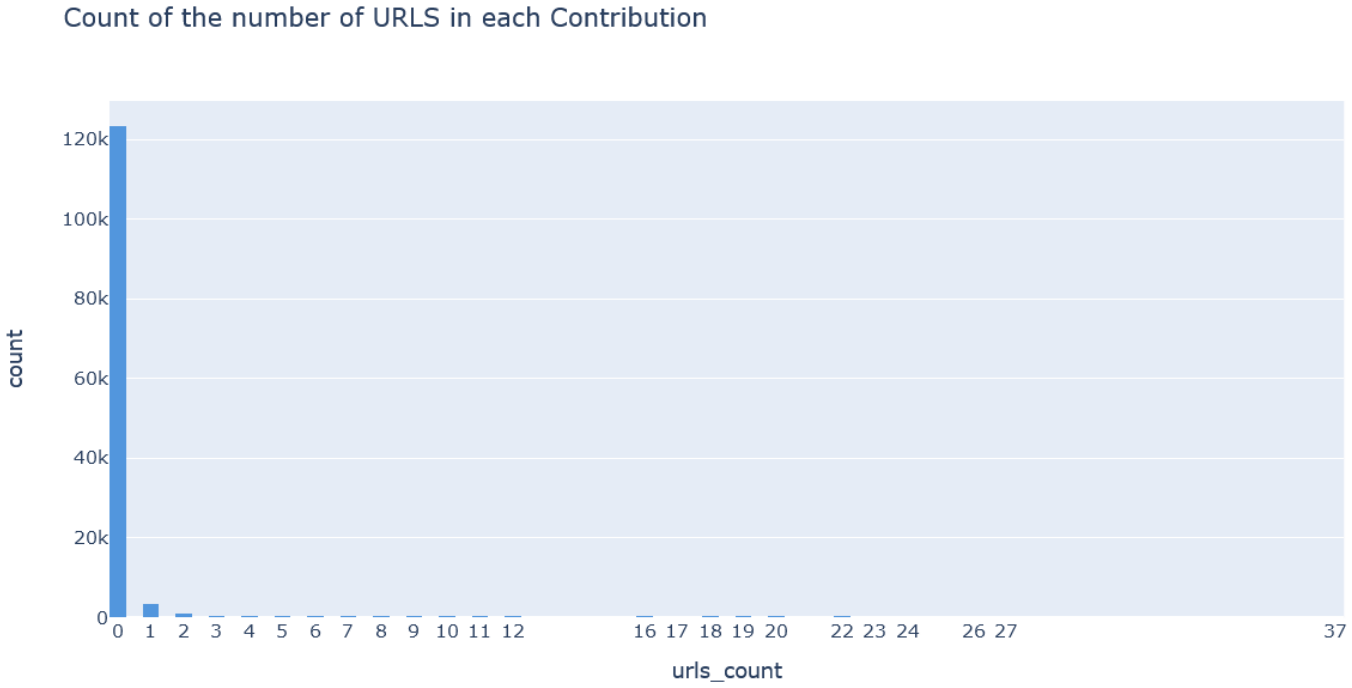
- The value counts of the users with the most submissions: has_verified_email
  - True 23
  - False 1
- The value counts of the users with the most submissions: is_mod
  - True 22
  - False 2
- The value counts of the users with the most submissions: is_gold
  - False 15
  - True 9
- The value counts of the users with the most submissions: is_banned
  - False 18
  - True 6
- comment_karma
  - Min -10.0
  - Max 52848
  - Mean 3940.28
  - Median 24

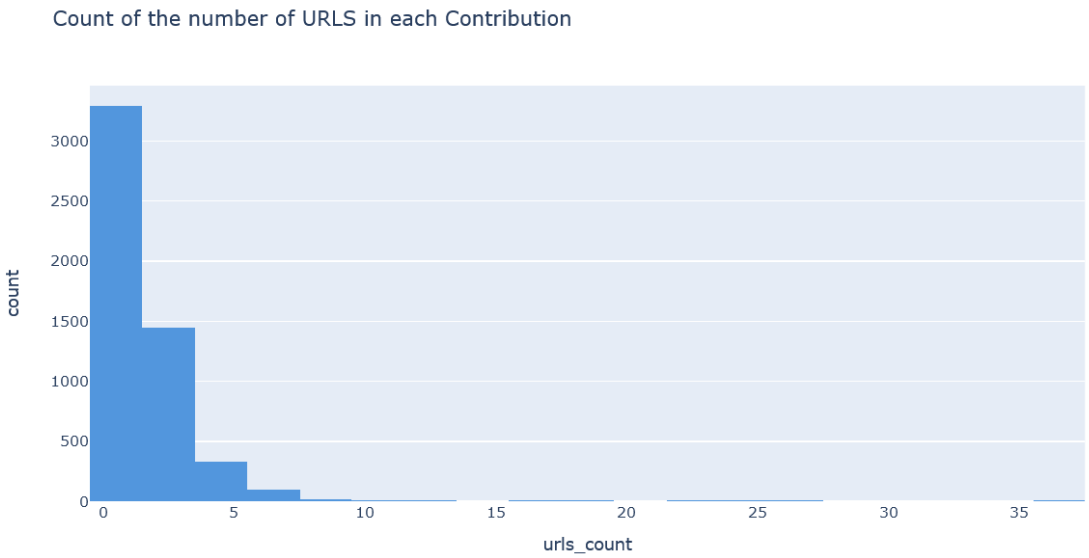
- The value counts of the users with the most submissions: link_karma
    - Min 2
    - Max 1870964
    - Mean 218104.7
    - Median 12119.5
- The value counts of the users with the most submissions: banned_unverified
    - others 17
    - banned 6
    - unverified 1
- The value counts of the users with the most submissions: creation_year
    - others 10
    - banned 6
    - 2019 3
    - 2018 3
    - 2020 2

Submission URLS

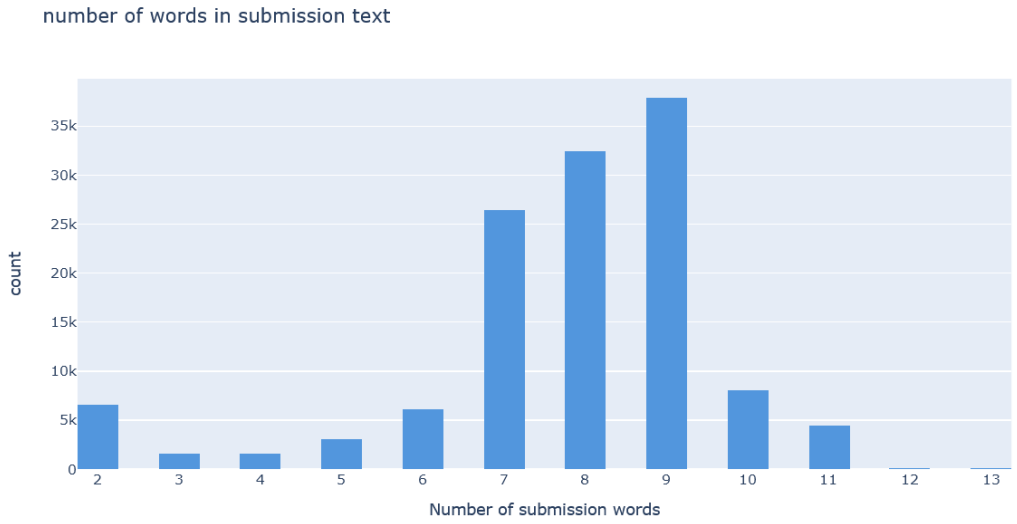
- 1086 url.

```
[]                                  123195
['https://www.reddit.com']             470
['https://youtu.be']                   342
['https://www.youtube.com']            197
['http://chng.it']                     190
```





Check the number of submission text words

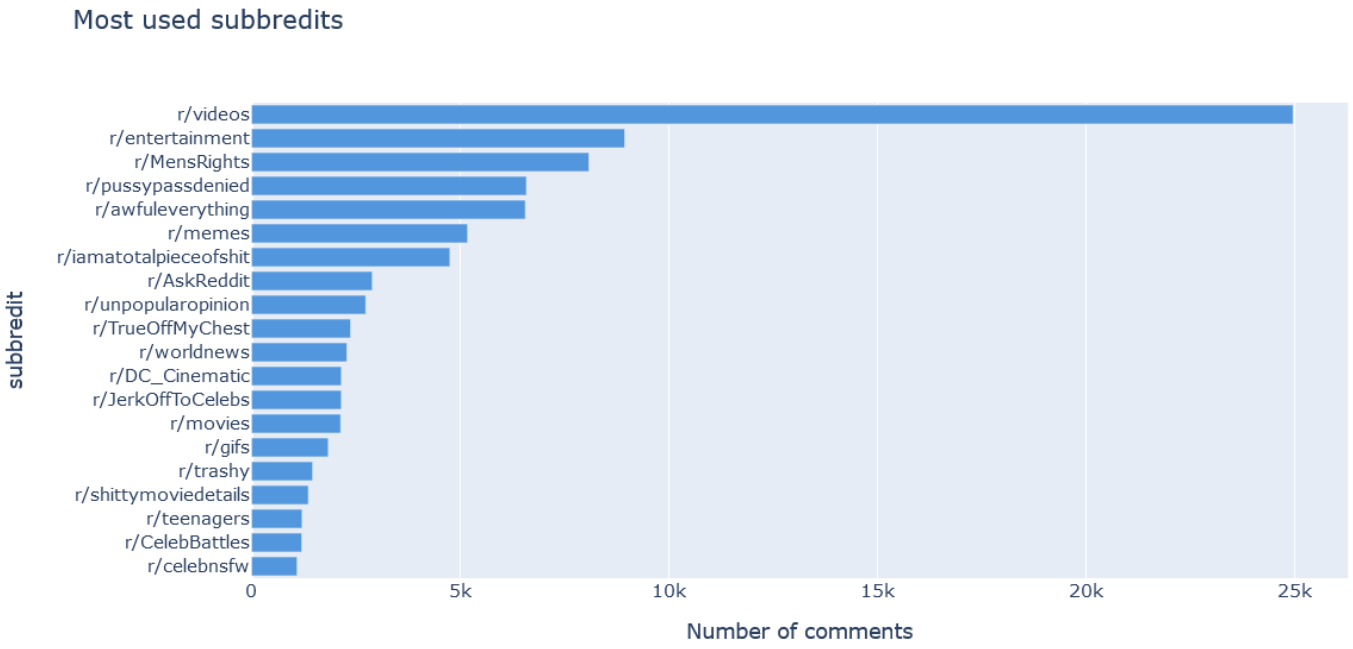


Subreddits

Most used Subreddits

- 1164 unique subreddits.

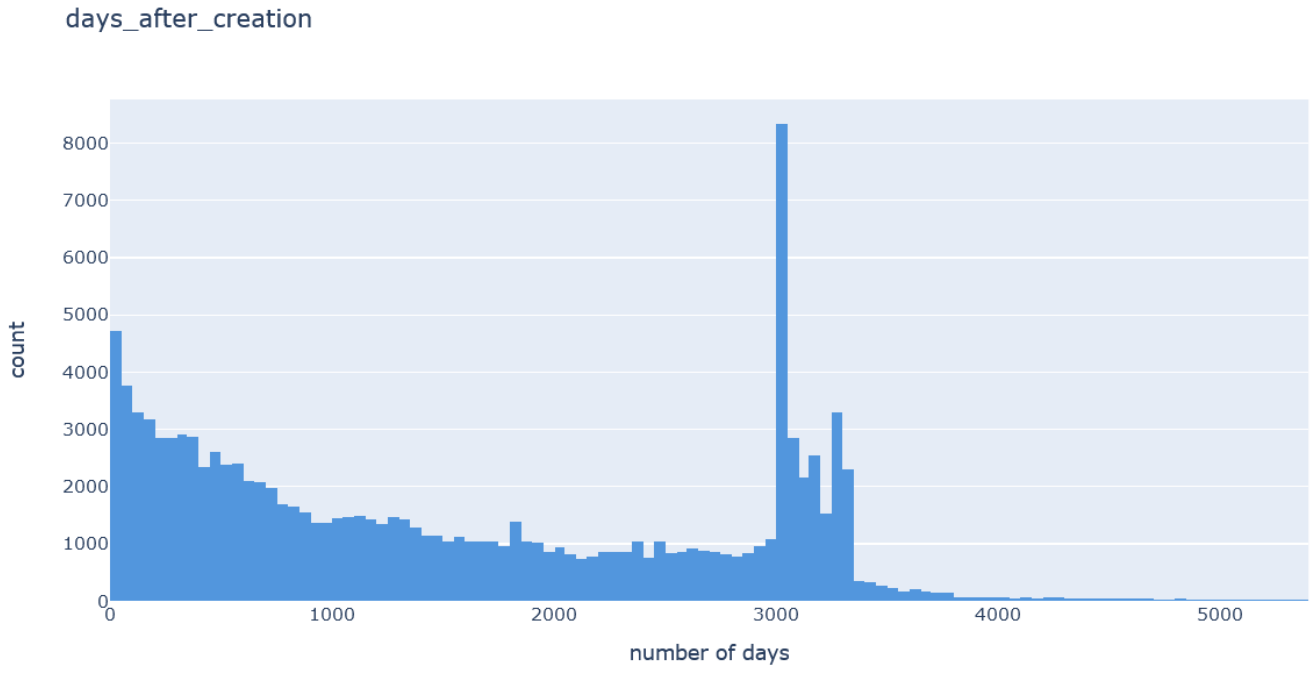
	index	subreddit
0	r/videos	24955
1	r/entertainment	8945
2	r/MensRights	8087
3	r/pussypassdenied	6589
4	r/awfuleverything	6563
5	r/memes	5181
6	r/iamatotalpieceofshit	4757
7	r/AskReddit	2898
8	r/unpopularopinion	2741
9	r/TrueOffMyChest	2378



Merged Users Data with Comments/Submissions Data

Difference in time between creating the account and posting

- 3011.0 1277
- 3009.0 862
- 3015.0 838
- 3014.0 719
- 3013.0 708
- ...

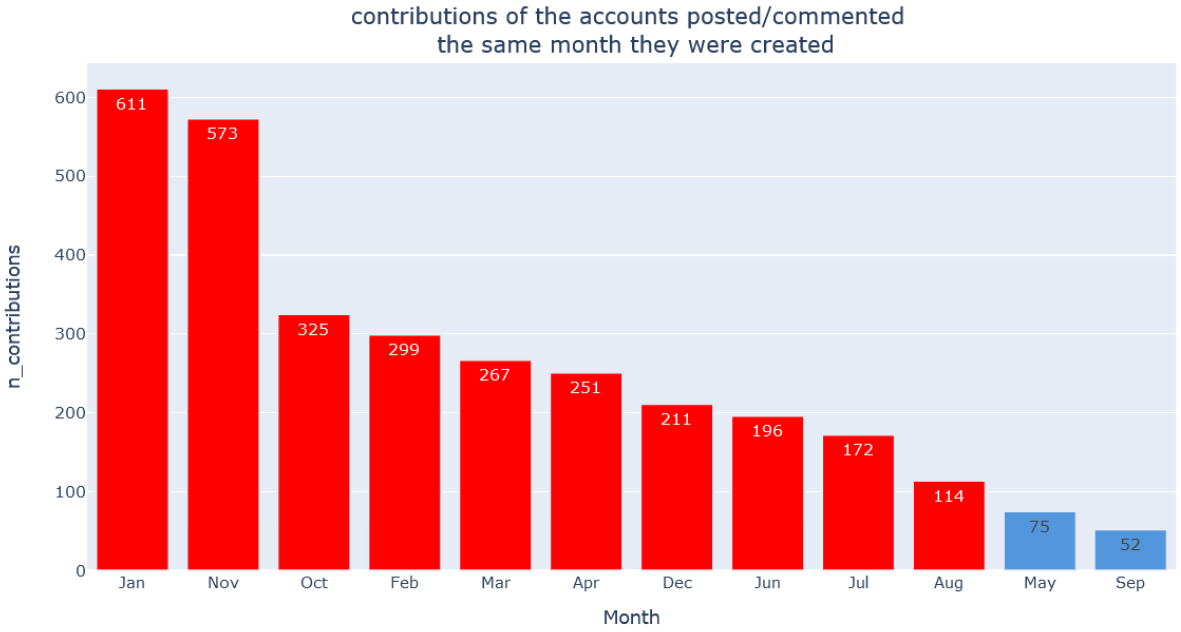


Posting Duration After Account Creation

- The number of accounts posted the same [8]**day** they were created was **360.**
- The number of accounts posted the same **week** they were created was **1209.**
- The number of accounts posted the same **month** they were created was **3146.**
- we can find that 3139 accounts created and posted within the same month in 2020 and only 7 in 2019.

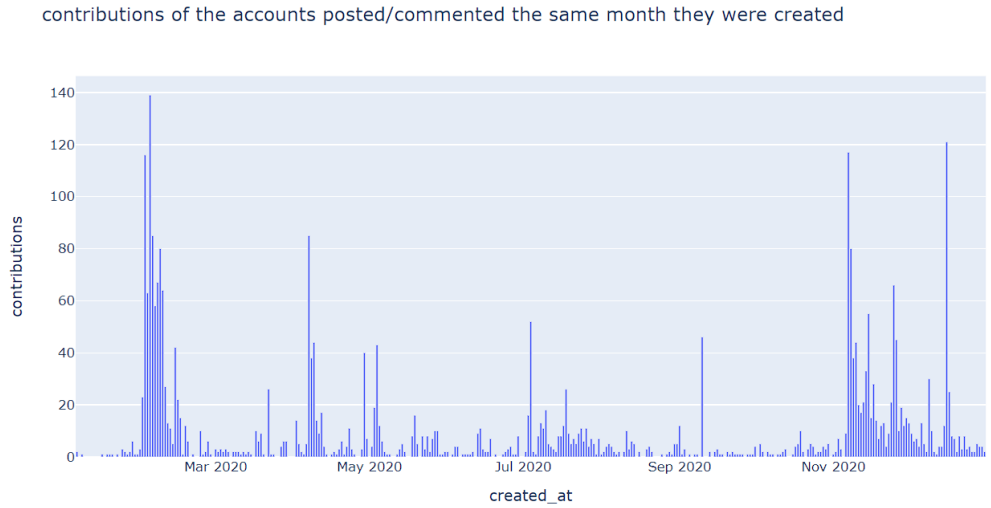
More investigations

Same Month

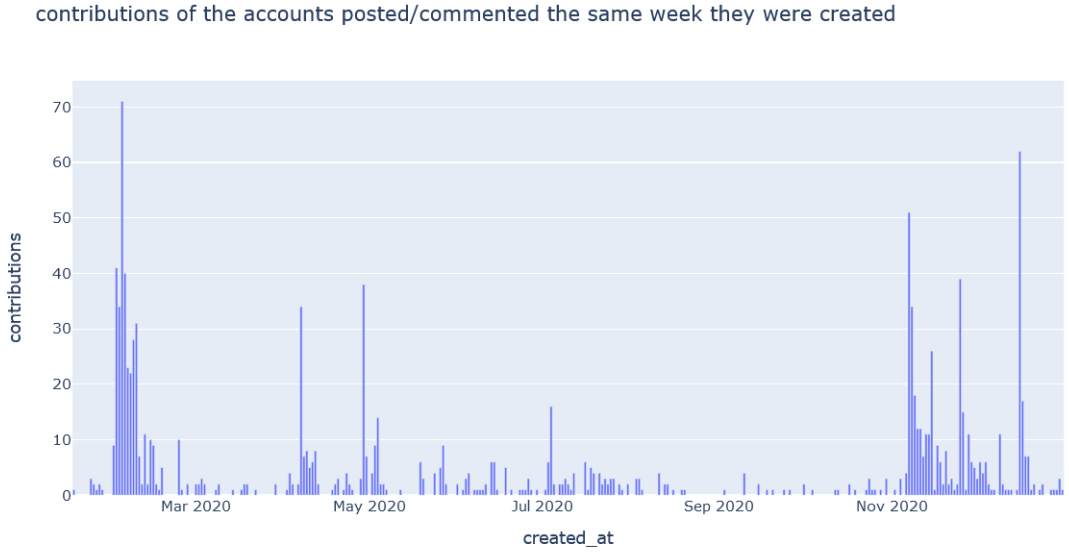


- Jan 611
- Nov 573
- Oct 325
- Feb 299
- Mar 267
- Apt 251
- Dec 211
- Jun 196
- Jul 172
- Aug 114
- May 75
- Sep

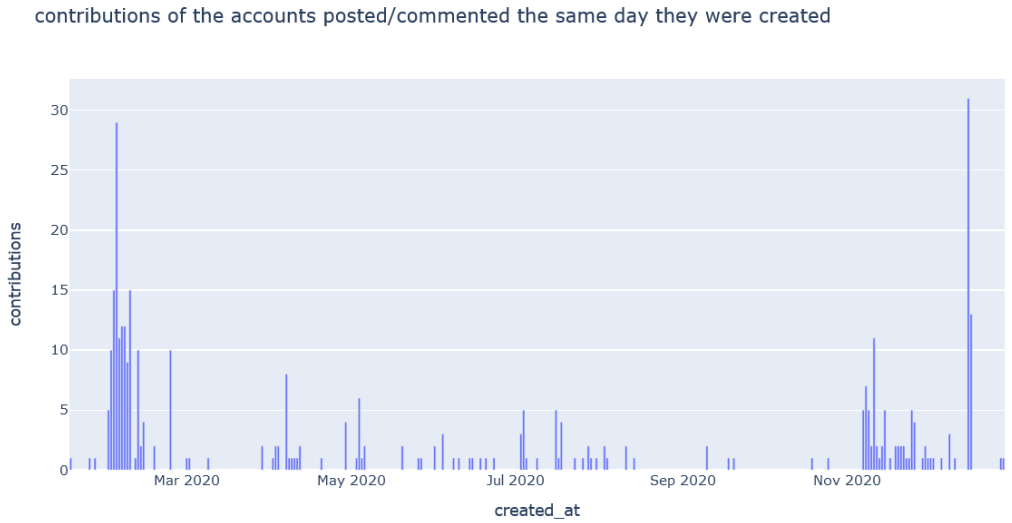
[8] Making a contribution



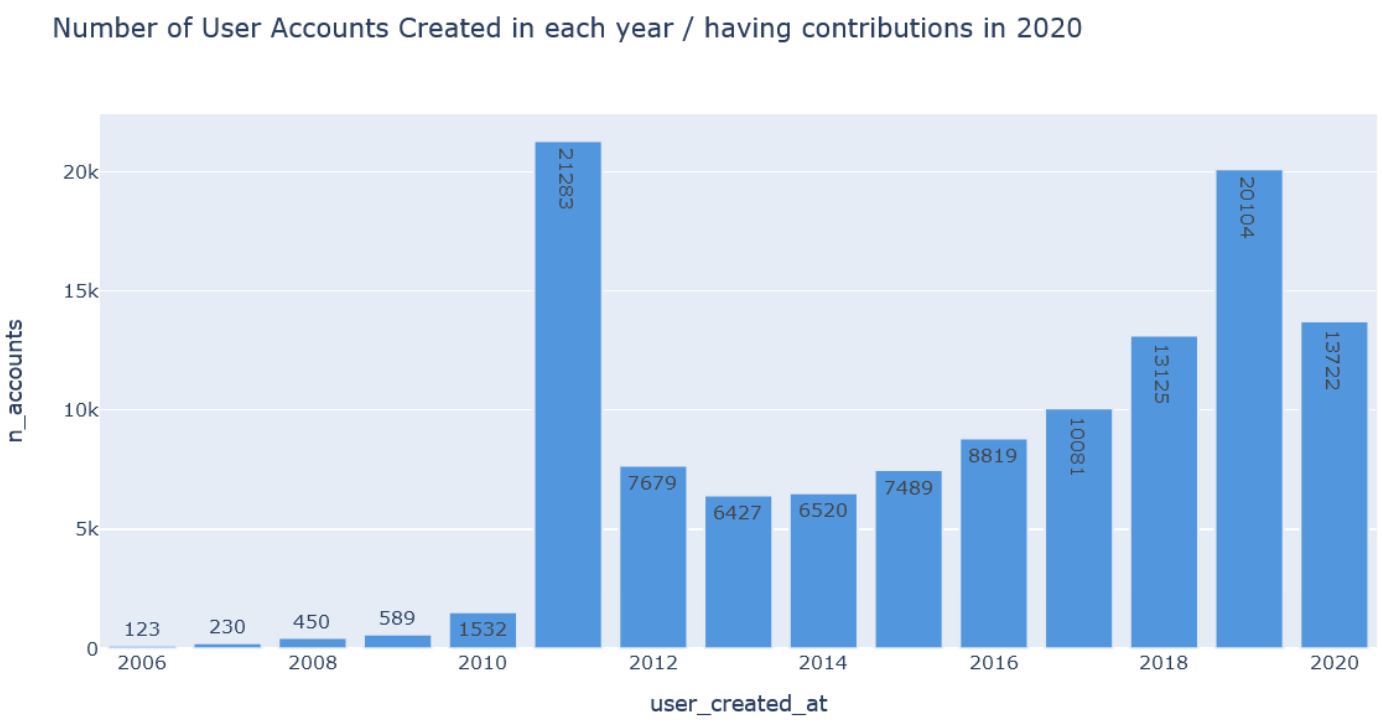
Same week



Same day



Estimation of Number of User Accounts Created in each year / having contributions in 2020



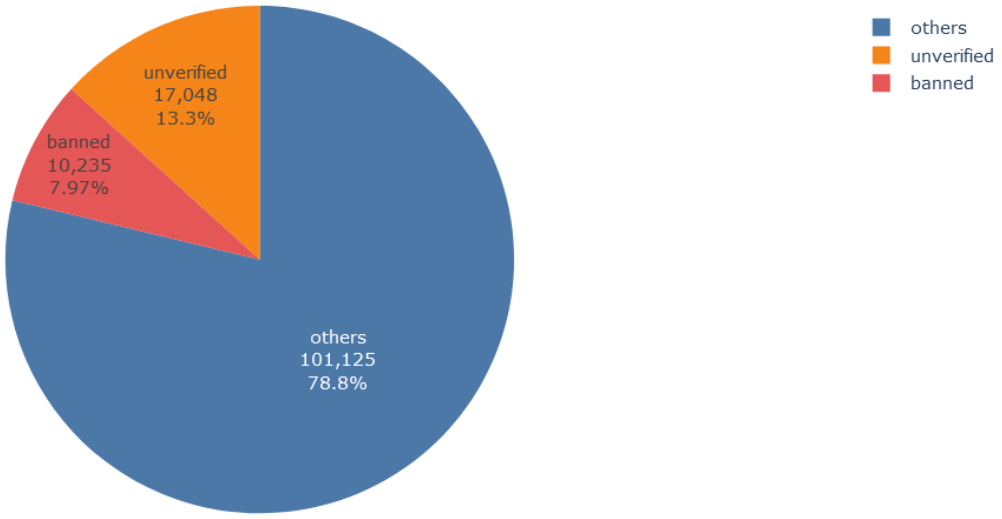
Banned Unverified accounts

- We have 10235 contributions in 2020 from banned accounts (3680 users).
- We have 17048 contributions in 2020 from unverified accounts (8481 users).
- 24360 users were made in 2018, 2019, and 2020 and contributed in 2020.
    - 6865 users were created in 2018 and made 13125 contributions in 2020.
    - 10084 users were created in 2018 and made 20104 contributions in 2020.
    - 7411 users were created in 2018 and made 13722 contributions in 2020.

Contributions

	banned_unverified
others	101125
unverified	17048
banned	10235

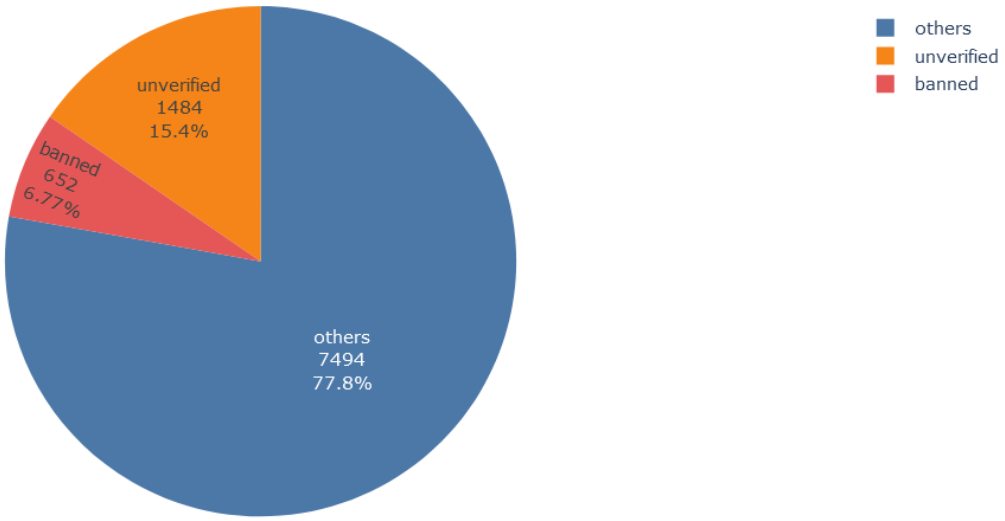
Contributions of banned / unverified /others in 2020



-

Peak Day Contributions

Contributions of banned / unverified /others on the peak day (2020-02-04)

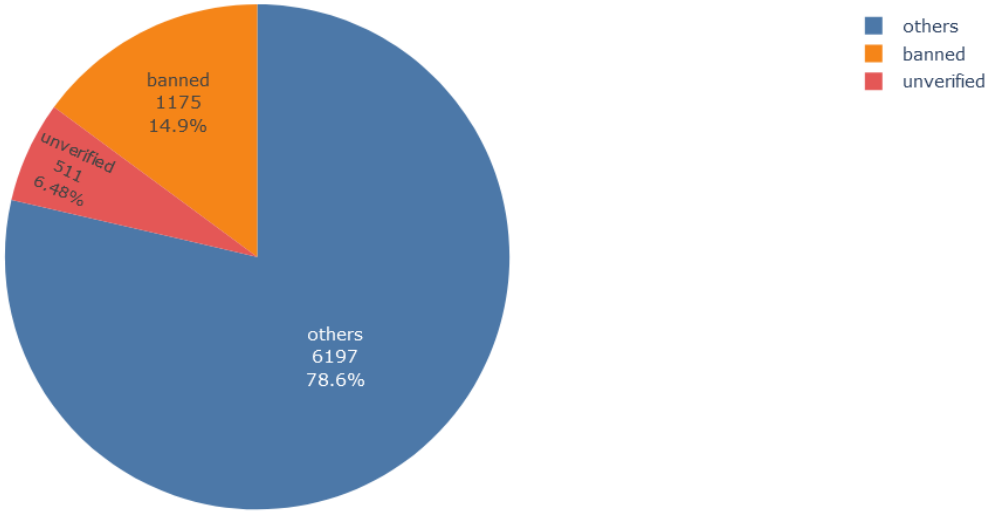


NOTE: 22.17% of peak day contributions were made by banned accounts and accounts with unverified email address

Submissions

	banned_unverified
others	6197
banned	1175
unverified	511

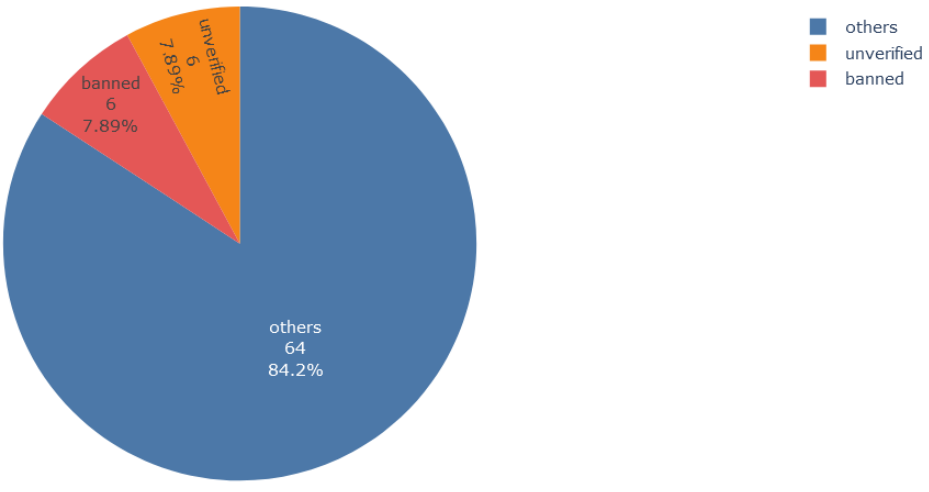
Submissions of banned / unverified /others in 2020



NOTE: About 20% of 2020 submissions were made by banned and unverified accounts.

Peak Day Submissions

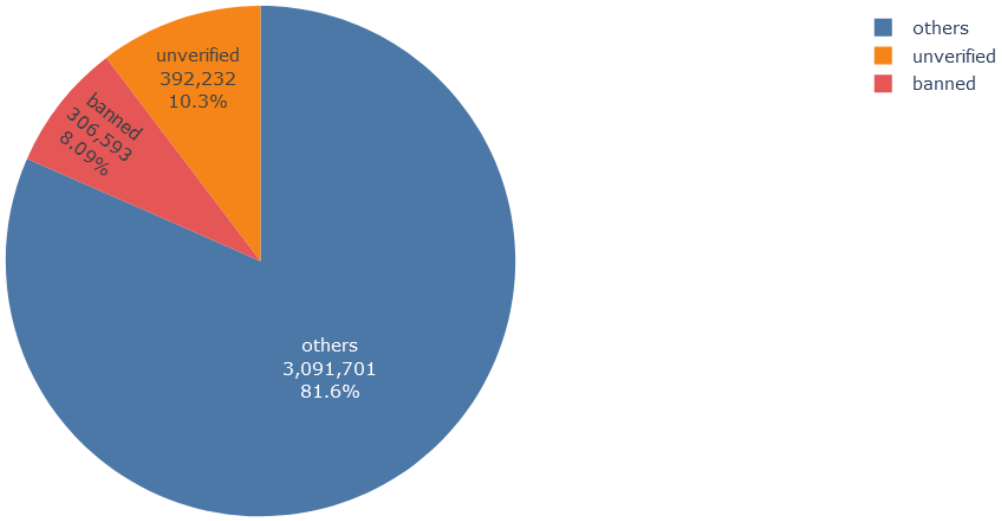
Submissions of banned / unverified /others on the peak day (2020-02-04)



Total Scores

banned_unverified	score
banned	306593.0
others	3091701.0
unverified	392232.0

Total Scores of banned / unverified /others in 2020

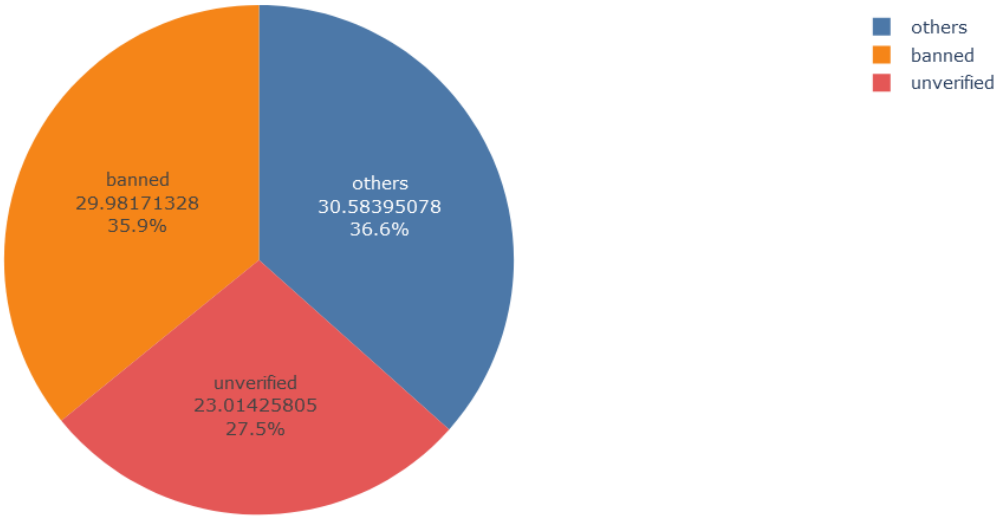


Average Scores per contribution

- avg_score = df_scores_relativ.score / df_scores_relative.n_contributions

banned_unverified	averaage_score
banned	29.981713
others	30.583951
unverified	23.014258

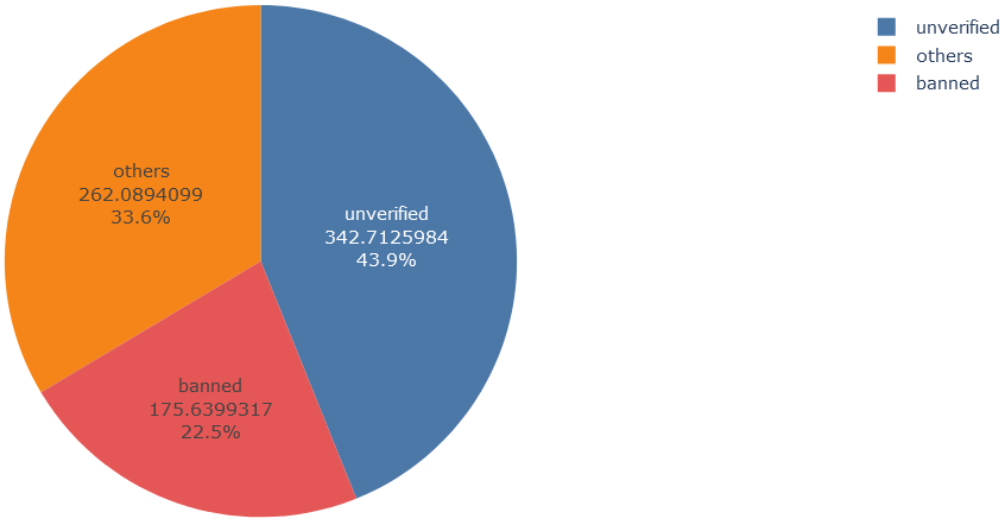
Average Scores of banned / unverified /others in 2020



Average Scores per submission

banned_unverified	score
banned	175.639932
others	262.089410
unverified	342.712598

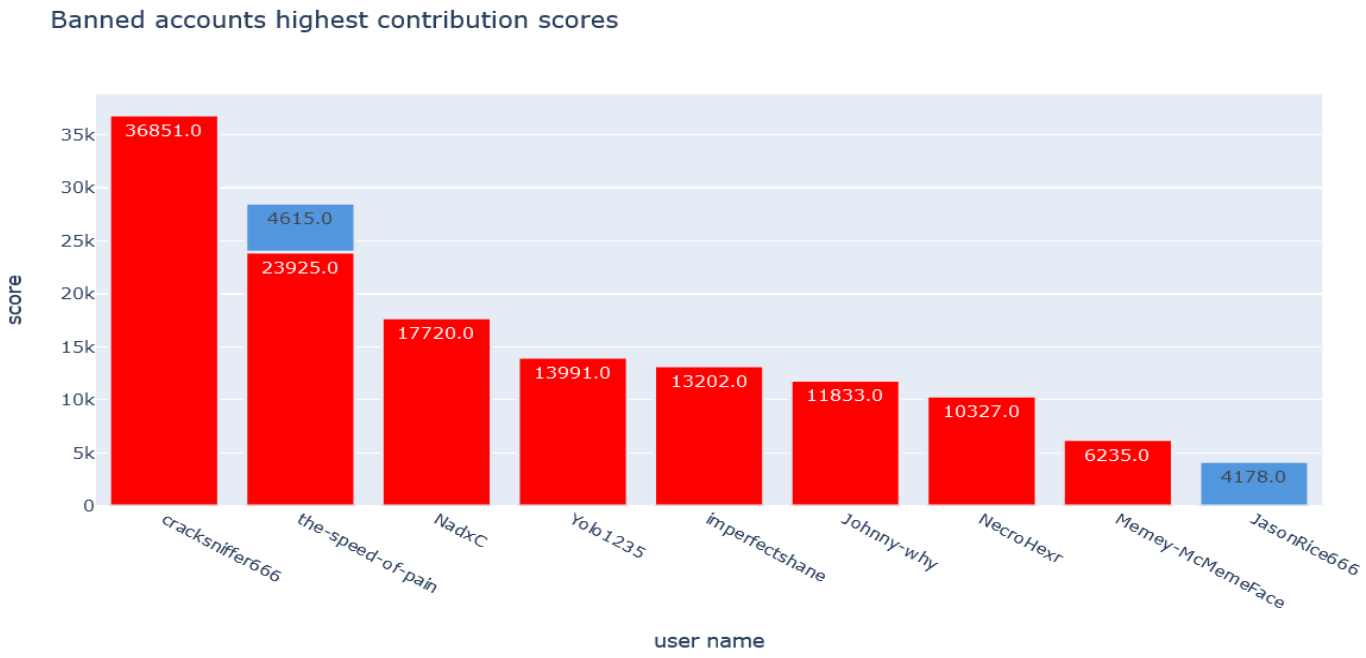
Average Scores of sumbmissions banned / unverified /others in 2020



Banned Accounts

Banned-Accounts largest scores

- count 10226
- mean 29.98
- std 548.53
- min -216
- 25% 1
- 50% 2
- 75% 6
- max 36851



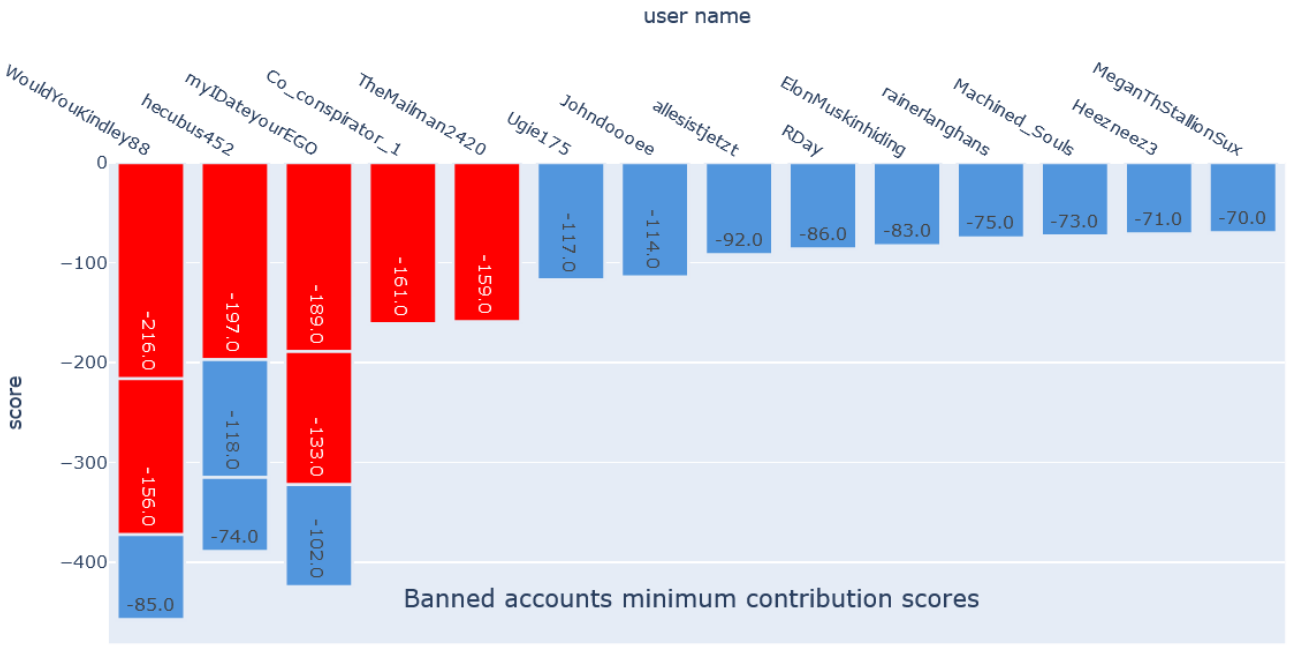
NOTE: "cracksniffer666": this user contributions got the hieghest scores.

Cracksniffer666

- This user made 98 comments, and one submission.

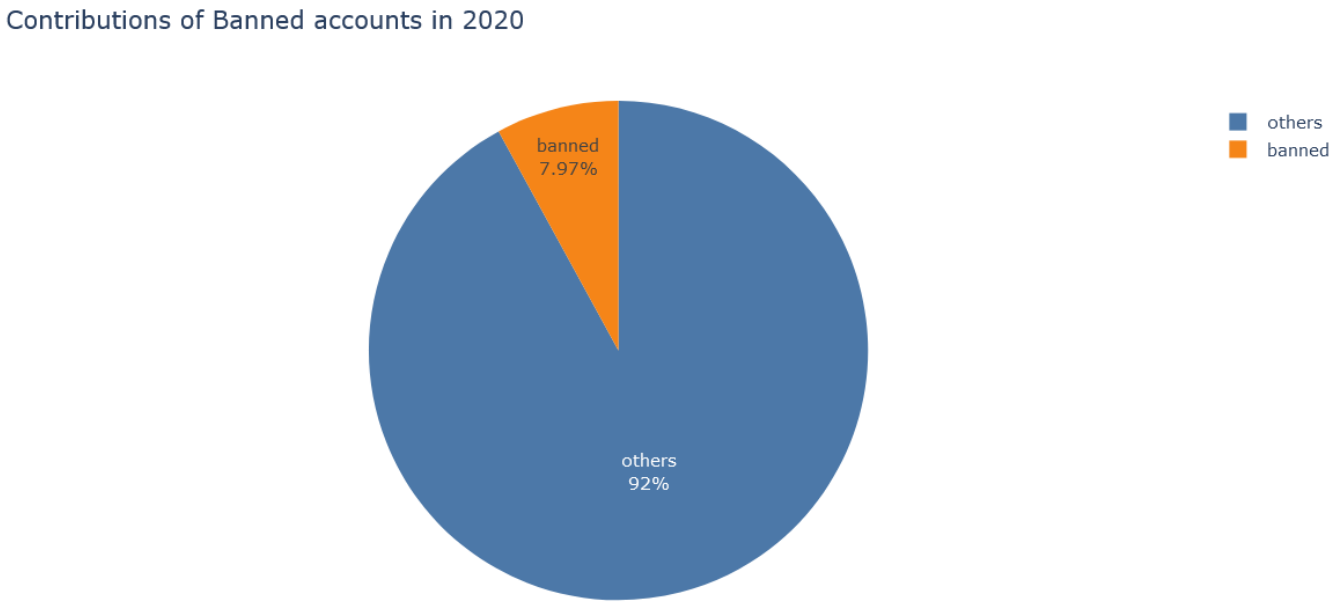
	created_at	n_contributions
0	2020-02-09	1
1	2020-02-10	89
2	2020-07-03	6
3	2020-07-04	3

Banned-Accounts minimum scores

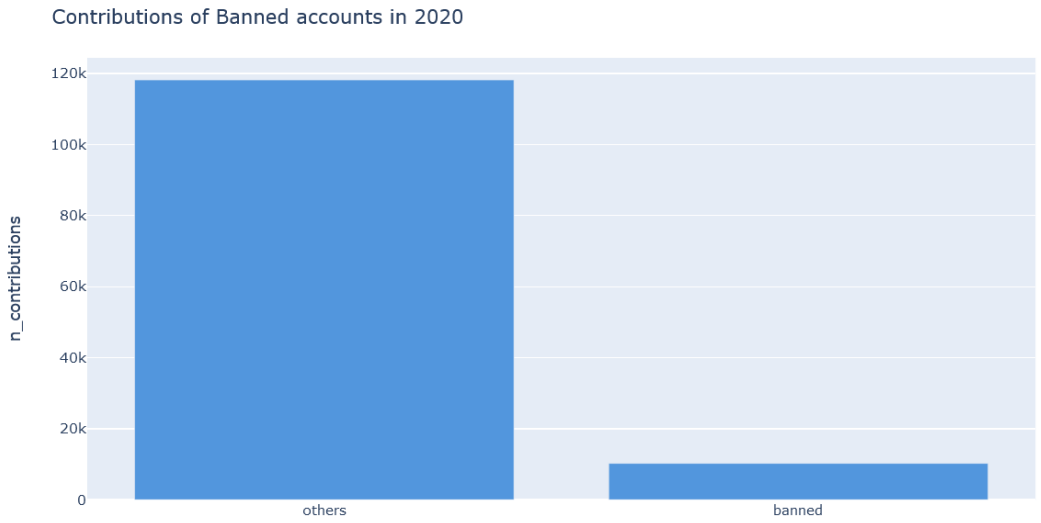


WouldYouKindley88 made 37 comments, all negative.

Contributions of Banned accounts in 2020

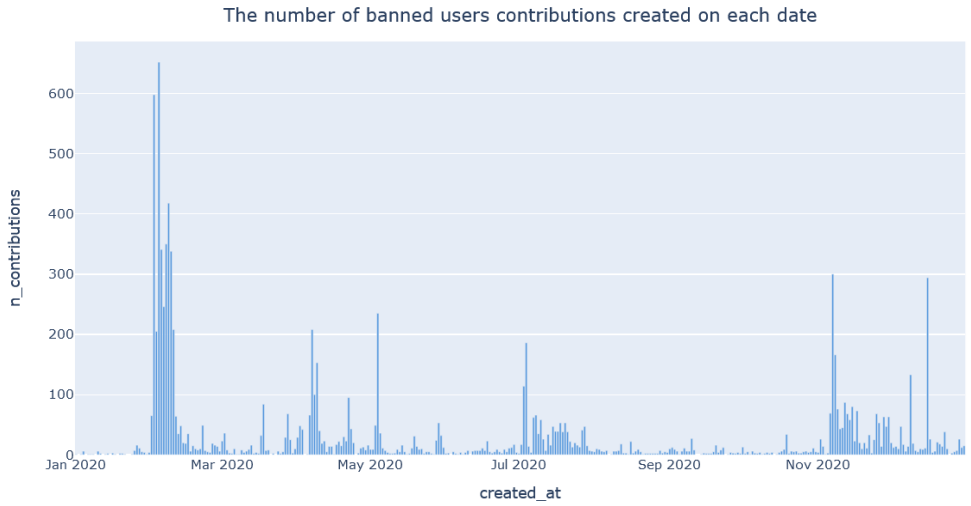


- The percentage % of 2020 contributions made by Banned accounts: **7.97**
- Total banned accounts contributions in 2020: **10235**
- Total banned accounts comments in 2020: **9060**

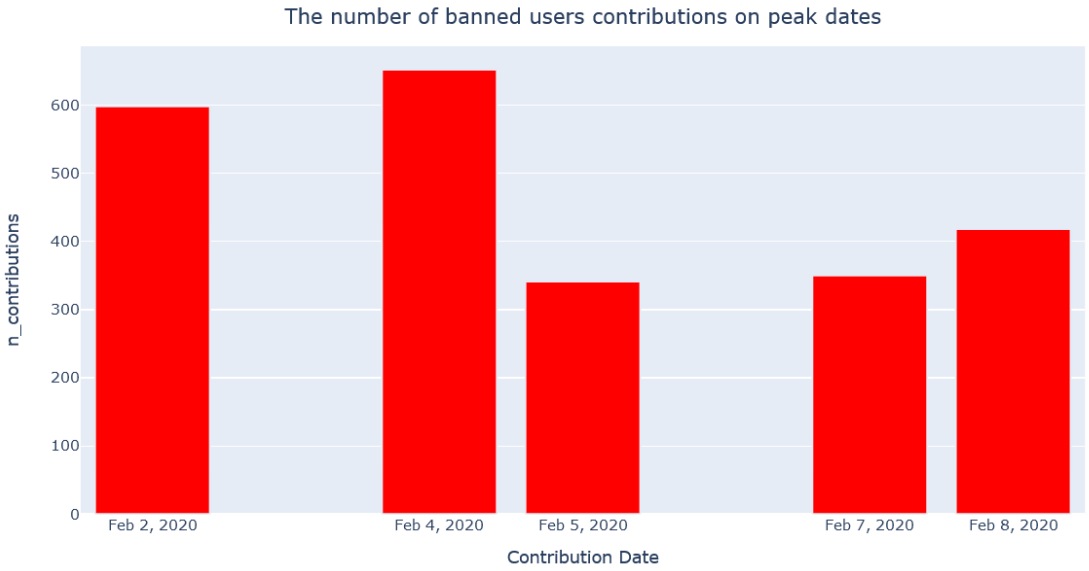


Banned Accounts Contributions Peaks

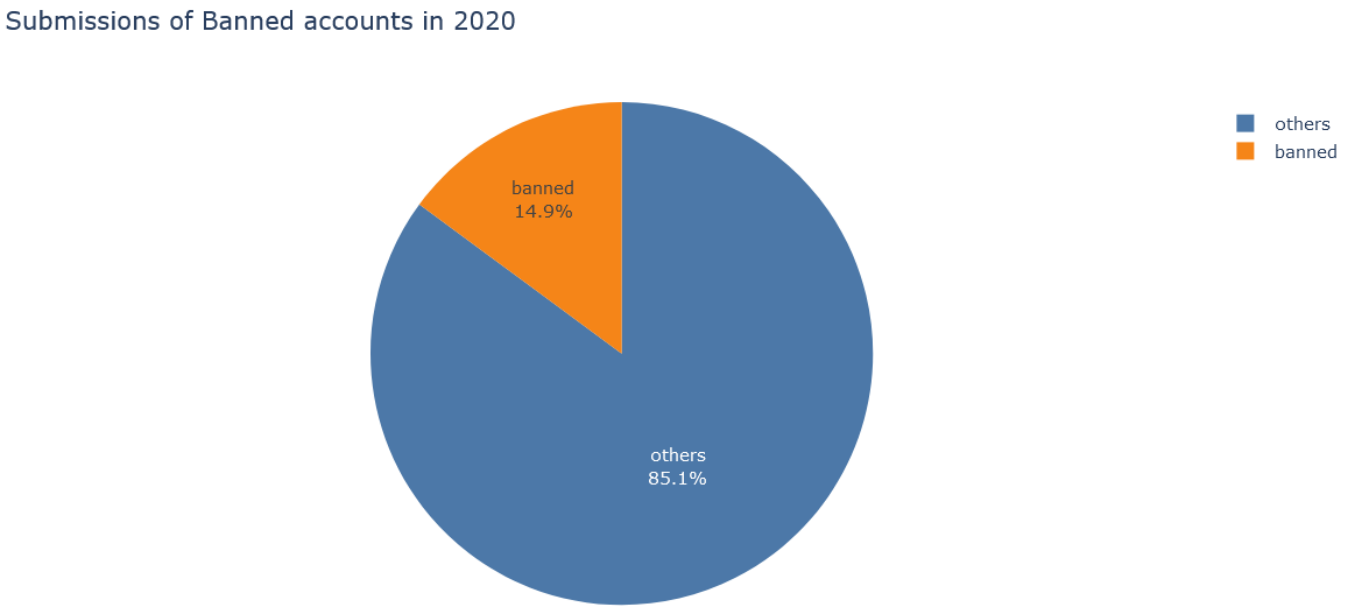
Which dates had the highest contributions of banned users?



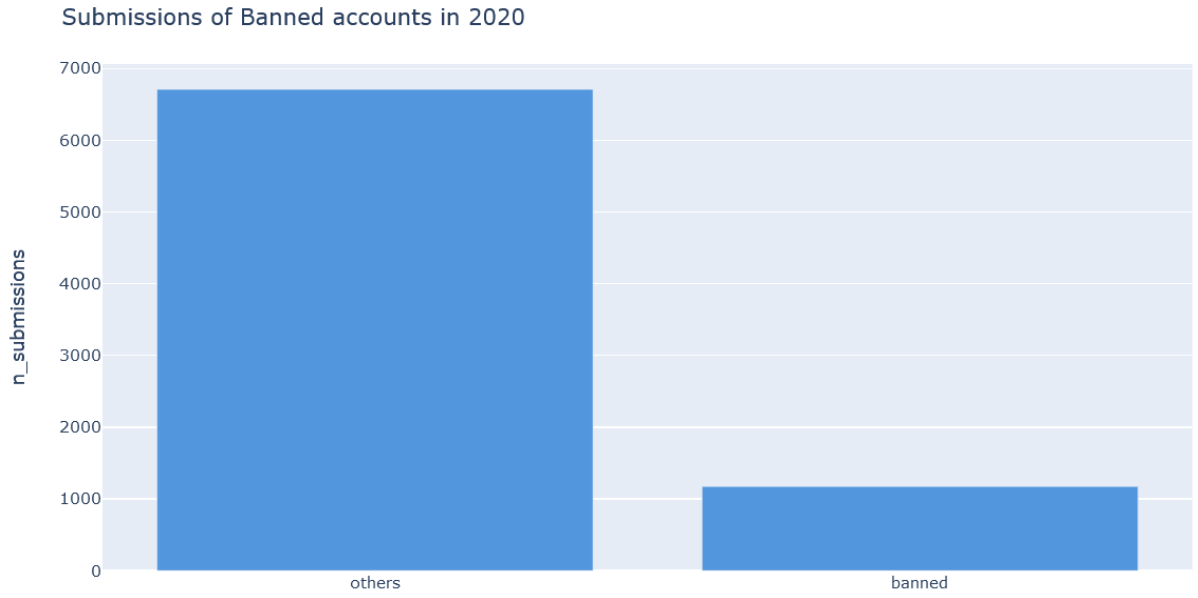
	created_at	n_contributions
26	2020-02-04	652
24	2020-02-02	598
30	2020-02-08	418
29	2020-02-07	350
27	2020-02-05	341
31	2020-02-09	338
292	2020-11-07	300
331	2020-12-16	294
28	2020-02-06	246
112	2020-05-04	235



Submissions of Banned accounts in 2020



- The percentage % of 2020 submissions made by Banned accounts: **14.91**
- Total banned accounts submissions in 2020: **1175**

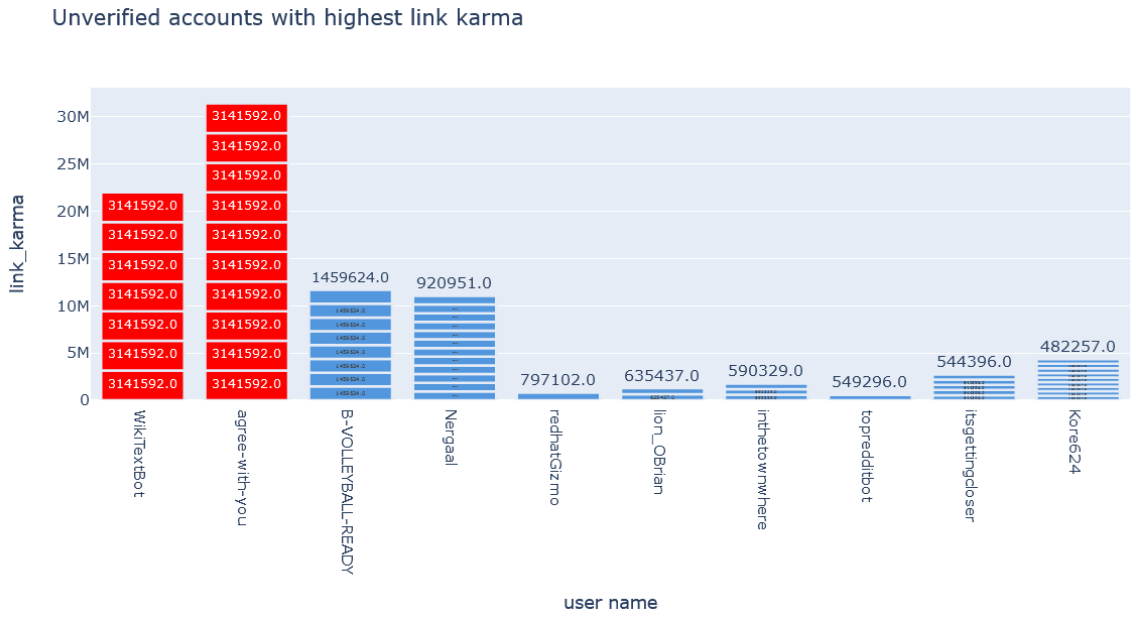


NOTE: "**armpit-lover**": this user made 20 contributions with the same text in those subreddits

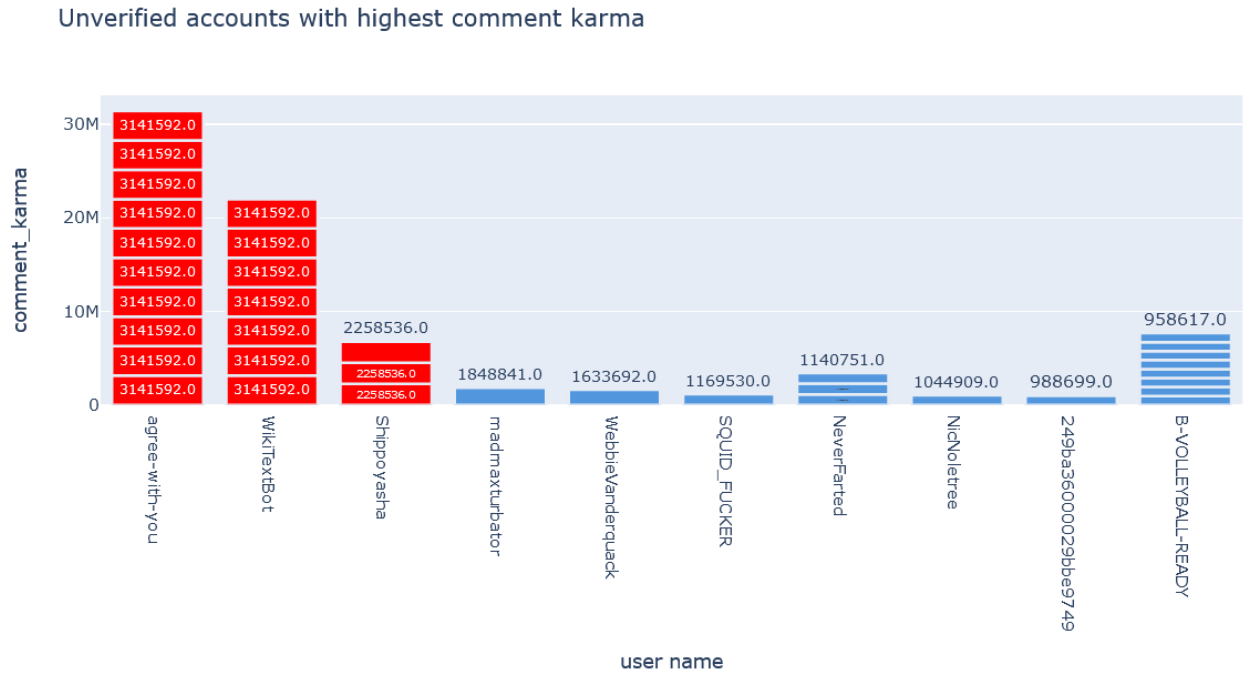
- **"rodrigohernandez4477"**: this user made 25 contributions with the same text in
  - 2020-12-05 (13) in 20 minutes.
  - 2020-11-28 (12) in 13 minutes.

Unverified Accounts

Unverified Accounts With The Largest Link Karma



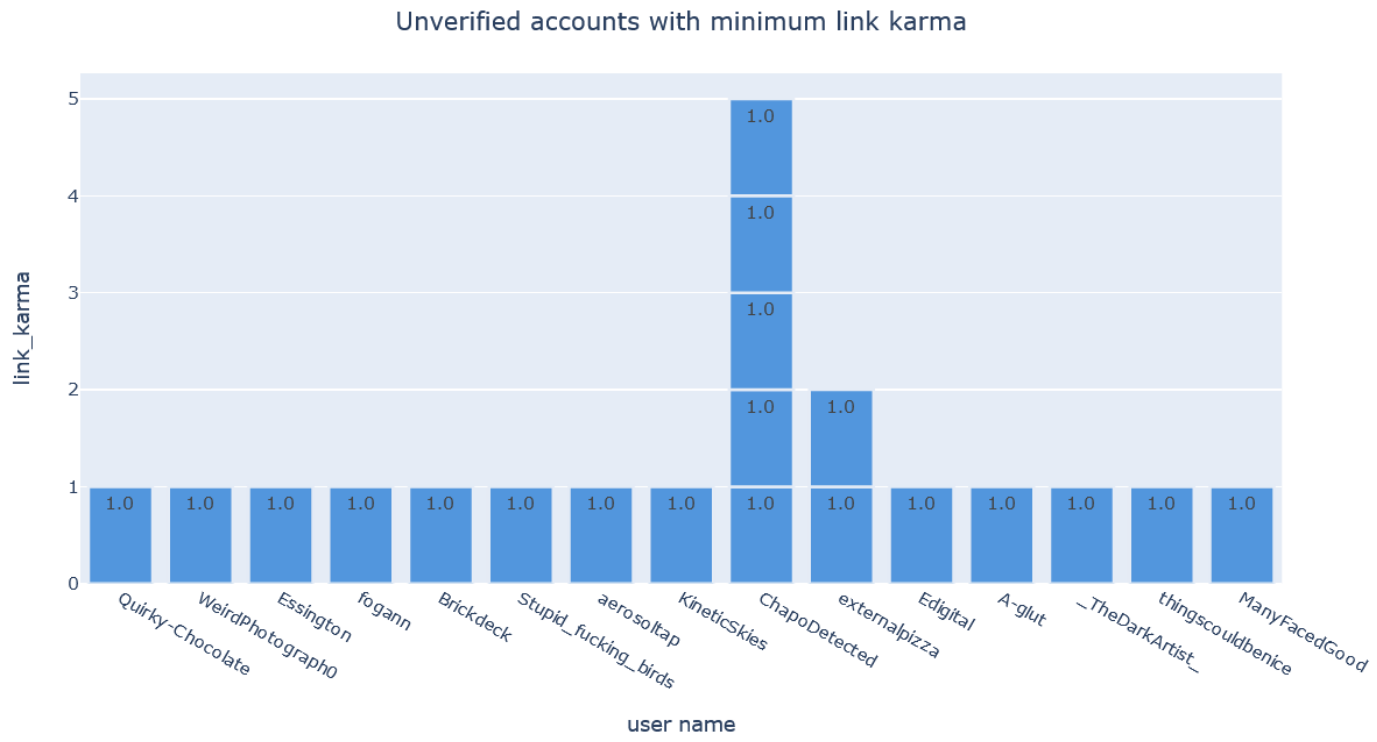
Unverified Accounts With The Largest Comment Karma



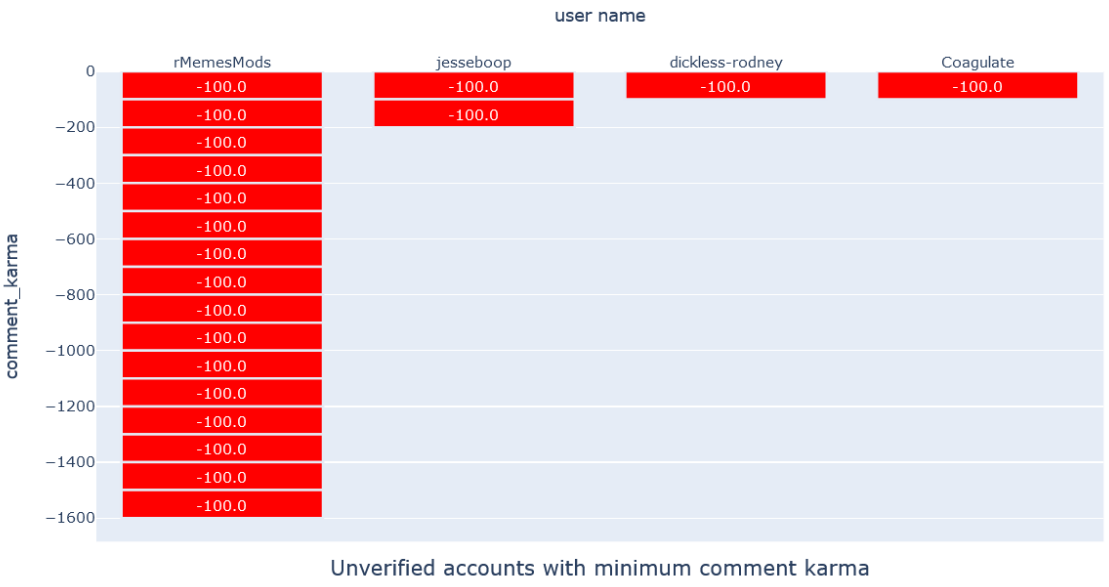
- **agree-with -you** is banned and unverified
  - Account Created at: 2018-03-11
  - All comments created in february except two comments from 10 (in july and august)
    - 27968 2020-02-02 13:35:15
    - 27969 2020-02-02 17:48:25
    - 27970 2020-02-02 18:38:52

- 27971 2020-02-03 13:10:12
- 27972 2020-02-04 20:17:08
- 27973 2020-02-05 15:41:16
- 27974 2020-02-09 10:01:35
- 27975 2020-02-13 12:08:43
- 27976 2020-07-03 06:54:37
- 27977 2020-08-13 09:31:14

Unverified Accounts With The Minimum Link Karma

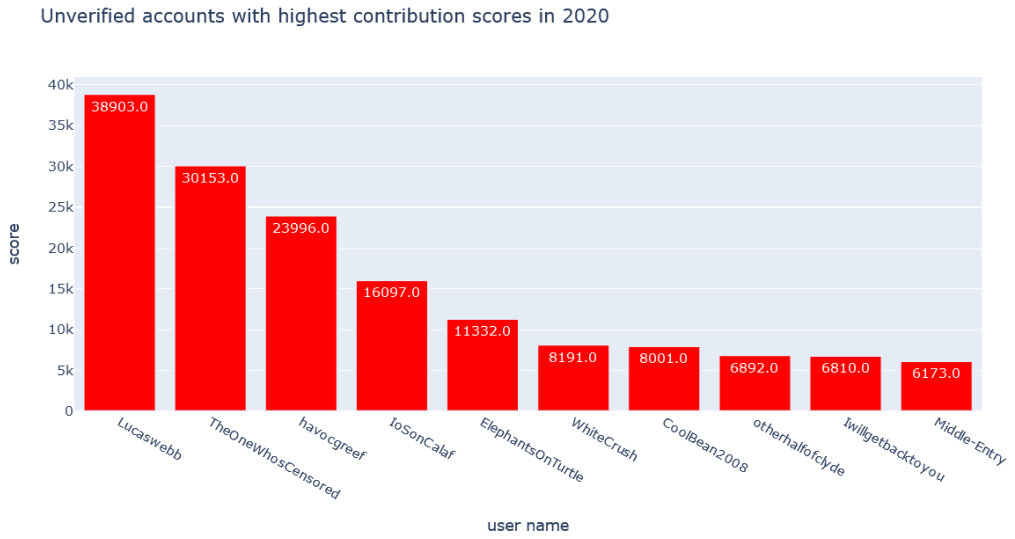


Unverified Accounts With The Minimum Comment Karma

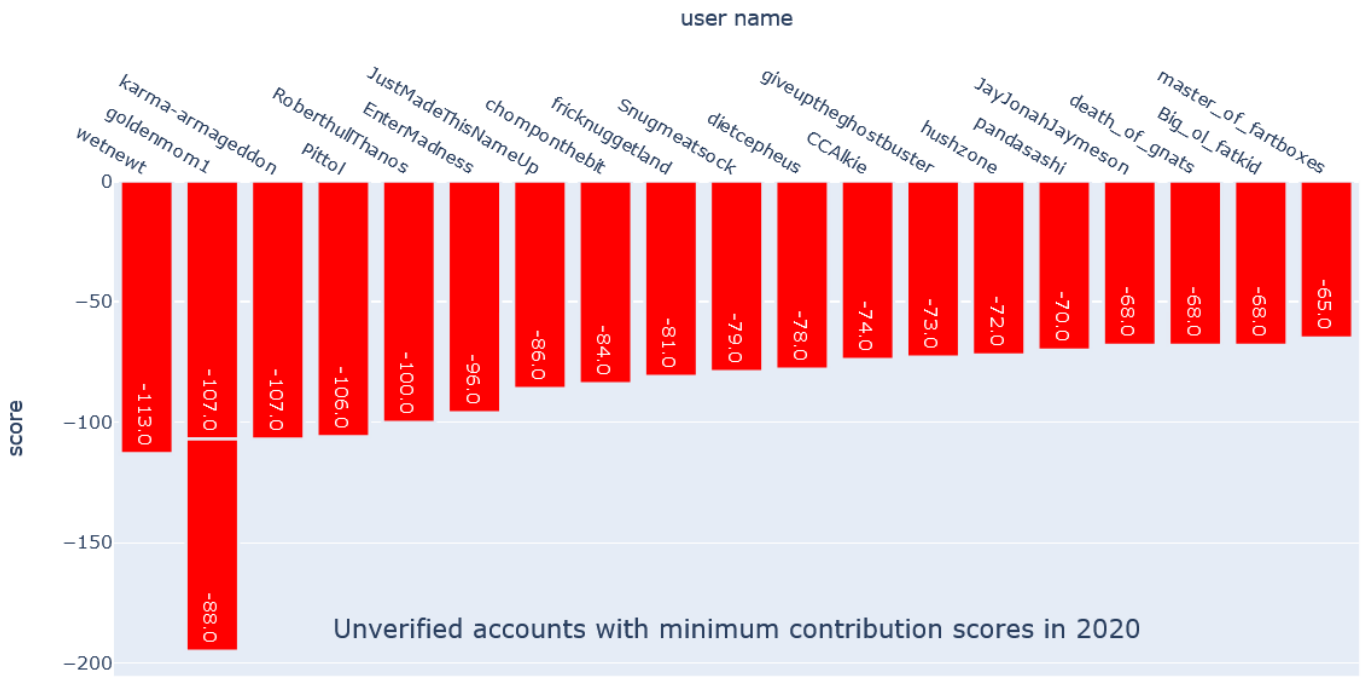


Explore the largest scores

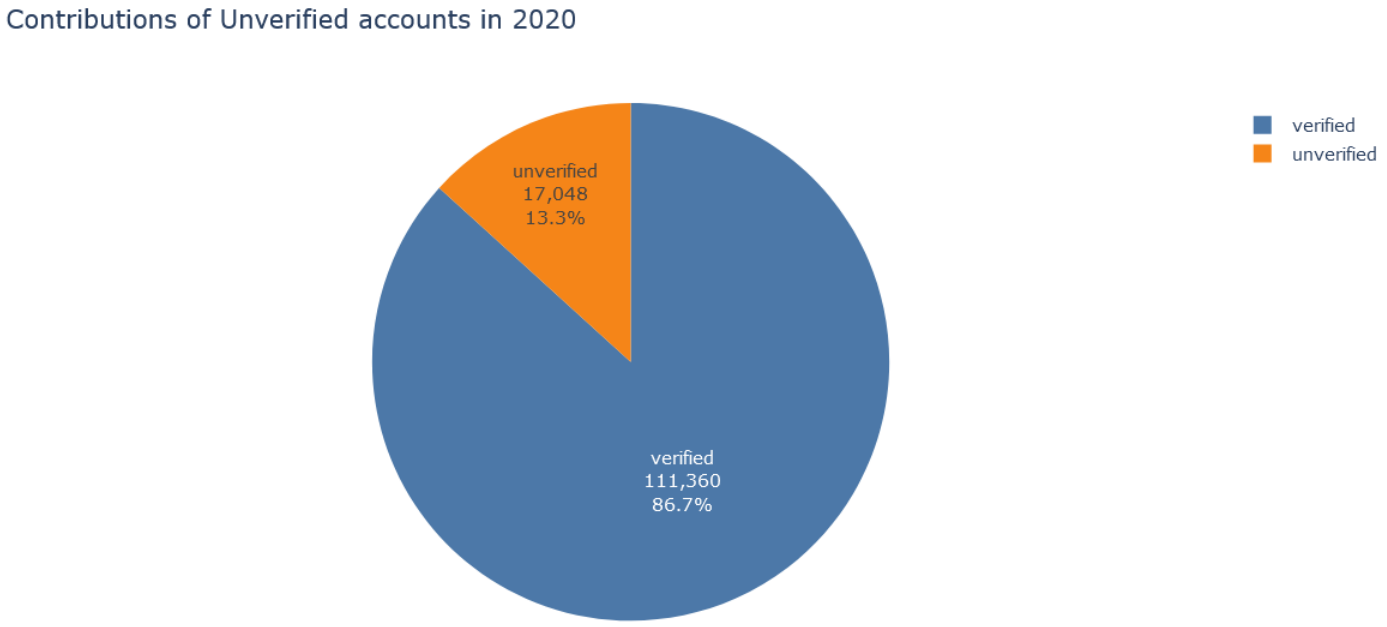
- count 17043.000000
- mean 23.014258
- std 473.097606
- min -113.000000
- 25% 1.000000
- 50% 2.000000
- 75% 6.000000
- max 38903.000000



Explore the minimum scores

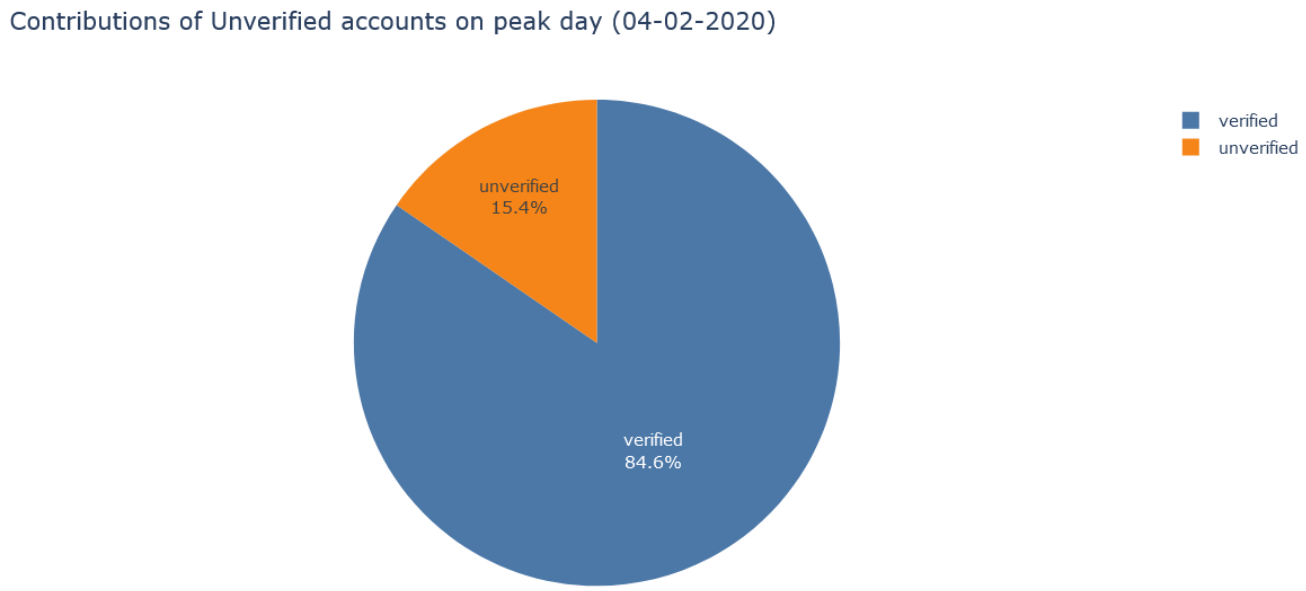


Contributions of Unverified accounts in 2020



- The percentage % of 2020 contributions made by Unverified accounts: **13.27.**
- Total unverified accounts contributions in 2020: **17048**

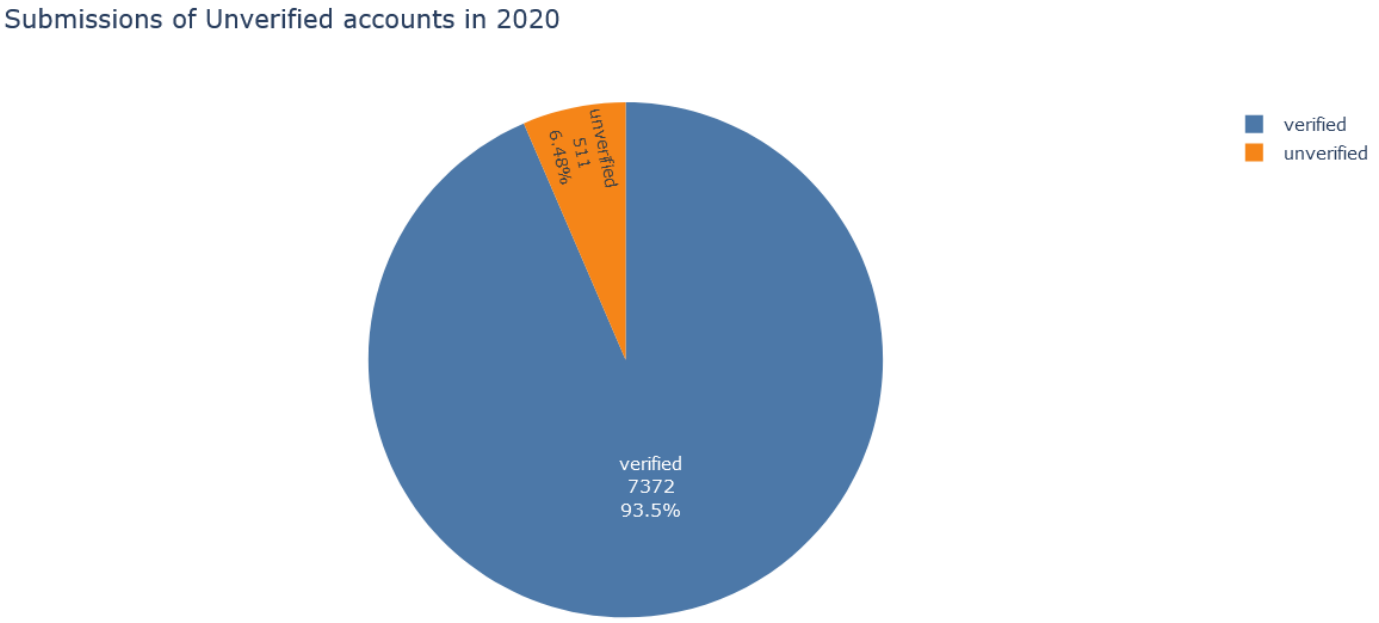
Peak day contributions (04-02-2020)



Comments

- Total banned accounts comments in 2020: **16537.**

Submissions



- The percentage % of 2020 submissions made by Unverified accounts: **6.48.**
- Total unverified accounts submissions in 2020: **511.**

NOTE: user **Boiledboxers1** made 5 submissions in "2020-03-28" in just seconds? Maybe a bot?

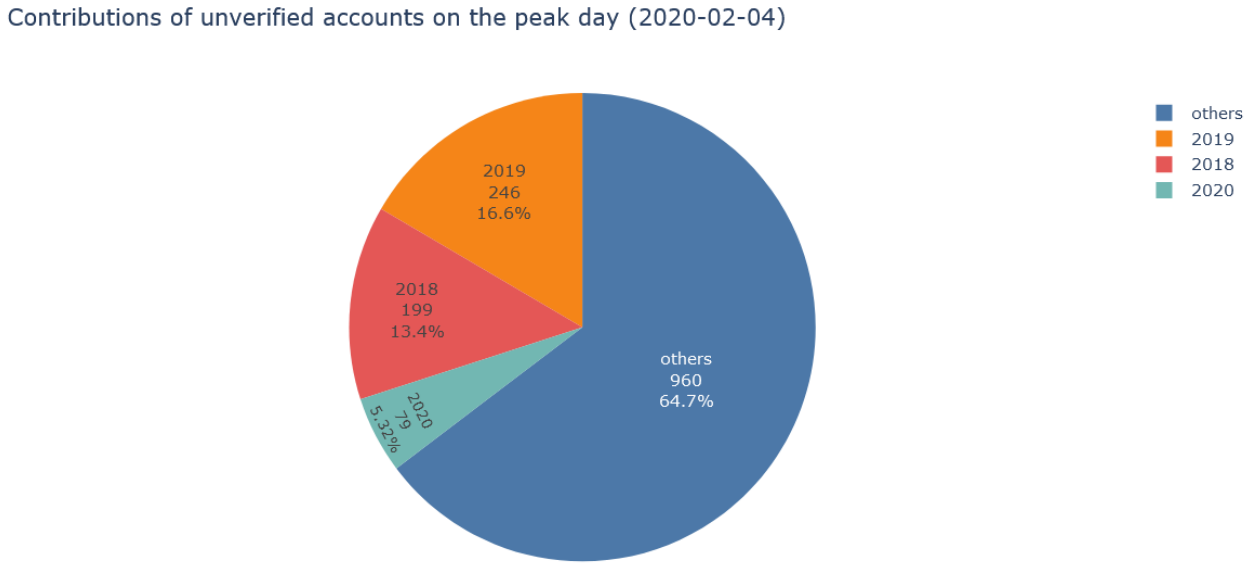
user_name	has_verified_email	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year	days_after_creation
Boiledboxers1	False	False	False	False	0.0	1.0	2020-03-19 13:59:38	unverified	2020	8.0

	user_name	user_created_at	submission_comment	created_at
86525	baronzemo168	2018-08-12 07:46:57	submission	2020-05-31 13:26:26
86532	baronzemo168	2018-08-12 07:46:57	submission	2020-05-31 14:56:38
86533	baronzemo168	2018-08-12 07:46:57	submission	2020-05-31 17:17:35
86541	baronzemo168	2018-08-12 07:46:57	submission	2020-06-29 15:46:37
86542	baronzemo168	2018-08-12 07:46:57	submission	2020-07-01 10:32:55

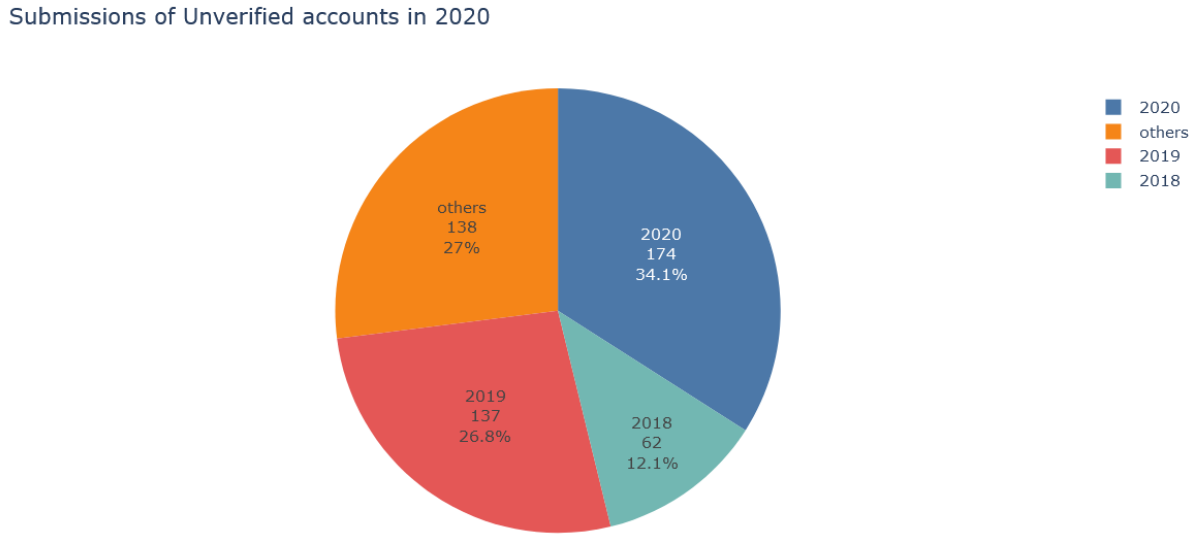
- user **baronzemo168** made 5 submissions, 3 of them made in "2020-05-31 ".

Creation years of the unverified accounts contributed in 2020

Contributions

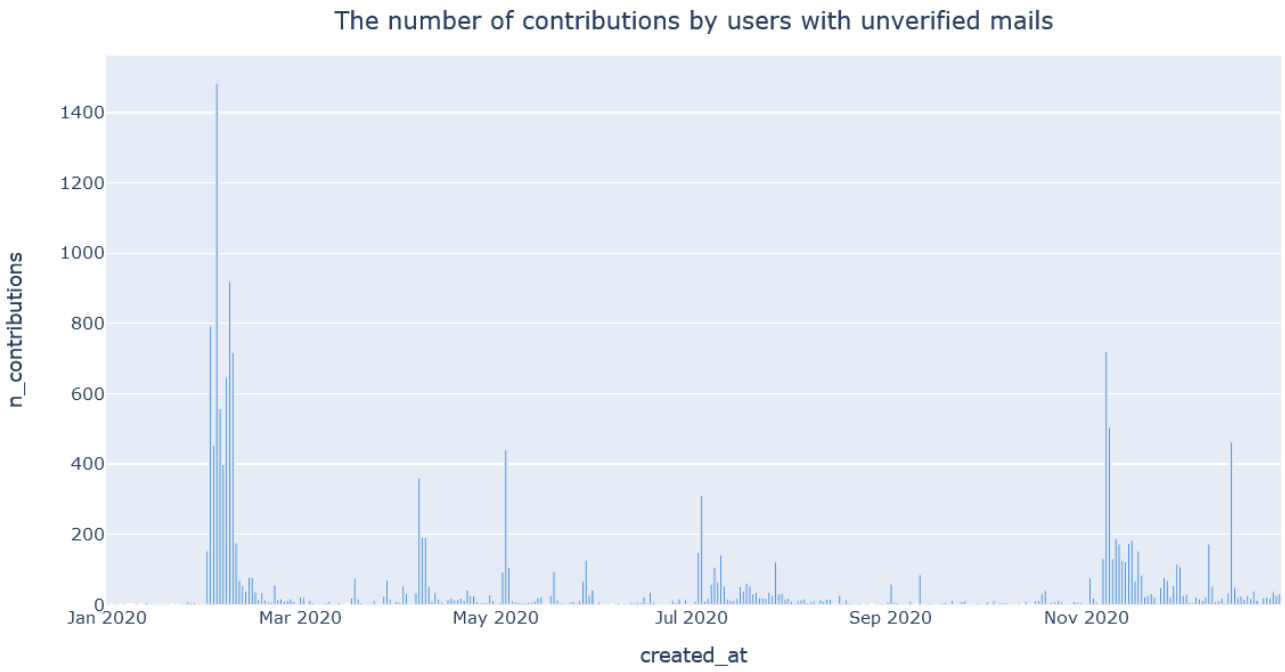


Submissions



- Unverified Accounts made 6 submissions on the beak day 04/02/2020.

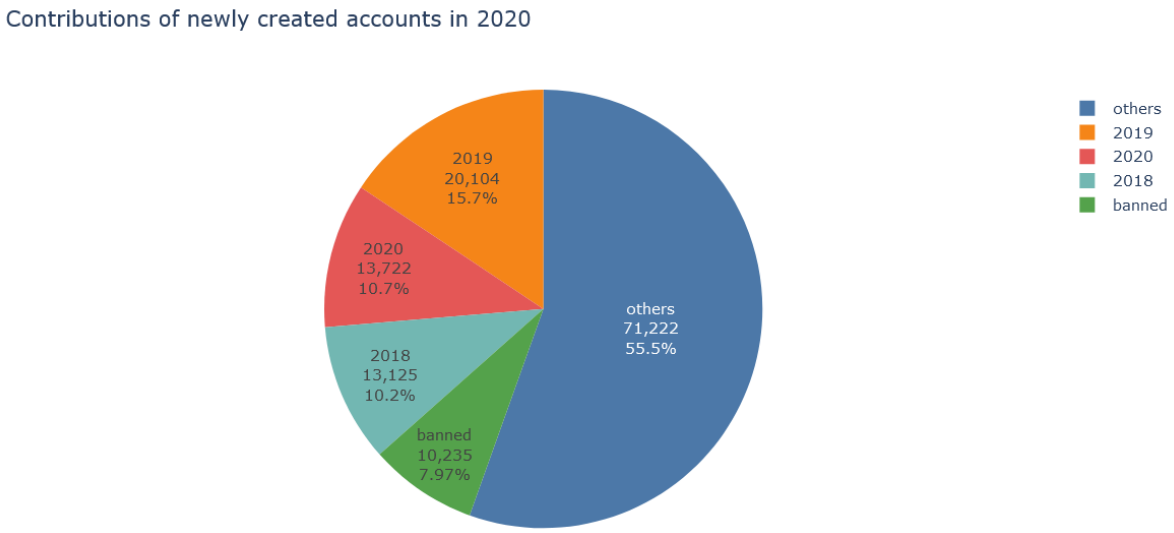
Which dates had the highest contributions of unverified accounts?



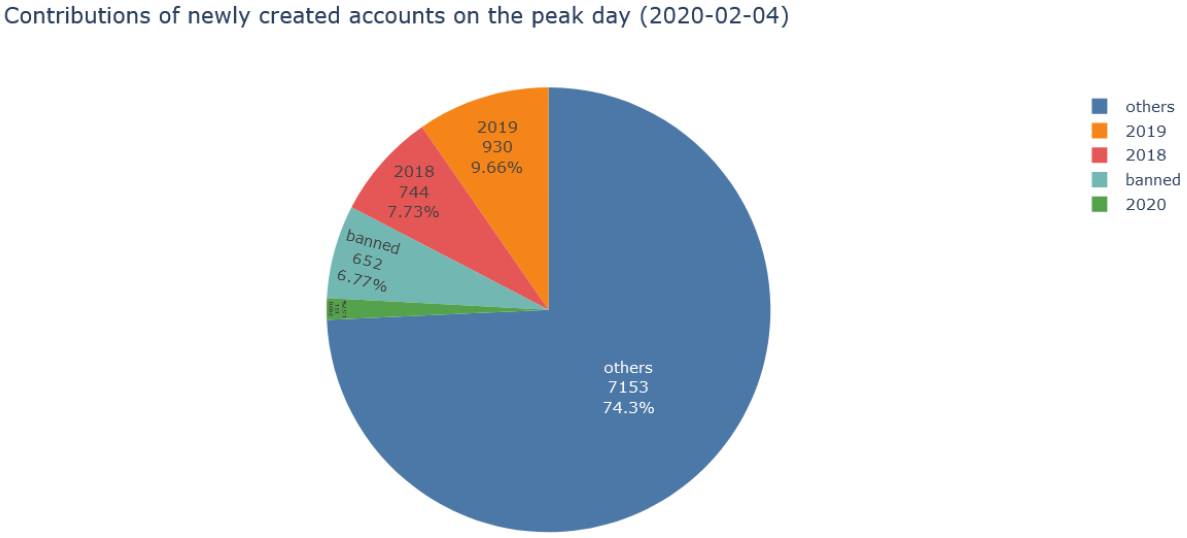
The number of unverified users contributions on peak dates

	created_at	n_contributions
23	2020-02-02	793
25	2020-02-04	1484
29	2020-02-08	920
30	2020-02-09	718
295	2020-11-07	720

New Vs Others

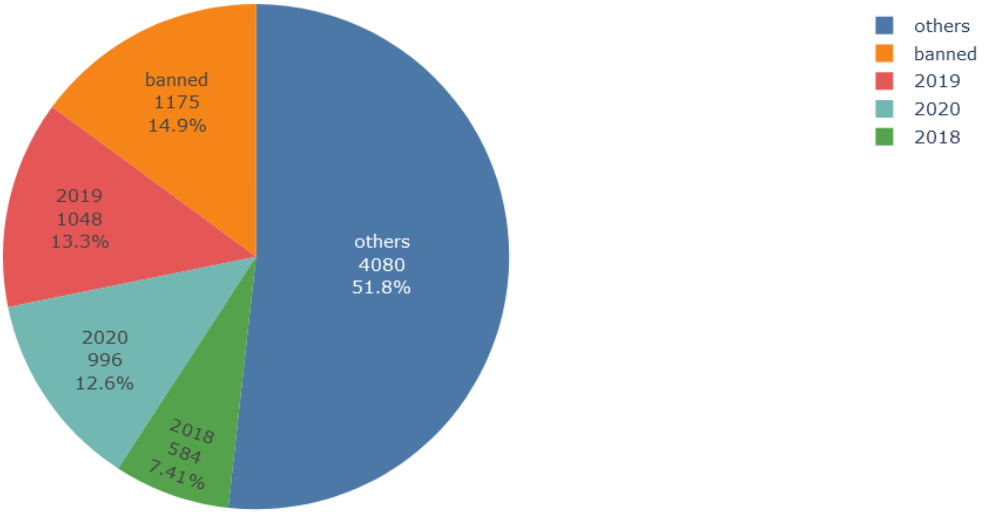


NOTE: More than 44% of 2020 Contributions were made on duration between 2018 and 2020.



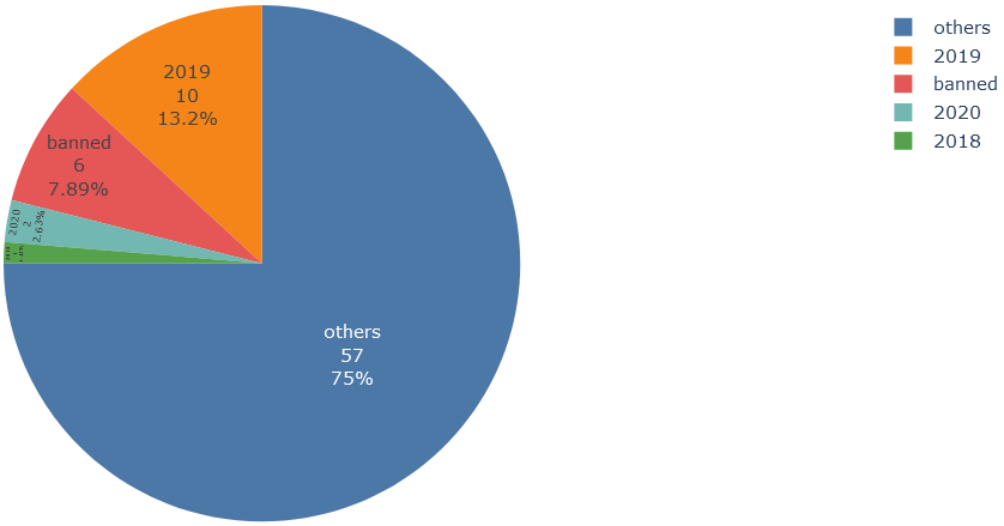
About 60% of 2020 Contributions were made by newly created accounts (last 4 years)

Submissions of newly created accounts in 2020



NOTE: About 65% of 2020 Submissions were made by newly created accounts (last 4 years)

Submissions of newly created accounts on the peak day (2020-02-04)



NOTE: We only have 76 submissions on peak day with about 9554 comments and replies

New Accounts

NOTE:

- Total contributions in 2020 made by newly created accounts(last 3 years): **46951.**
- The percentage % of 2020 contributions made by newly created accounts(last 3 years): **36.56.**
- Total comments in 2020 made by newly created accounts(last 3 years): **44323.**
- Total submissions in 2020 made by newly created accounts(last 3 years): **2628.**
- The percentage % of 2020 submissions made by newly created accounts(last 3 years): **33.34**

2018 accounts

- **Contributions**
    - Total contributions in 2020 made by newly created accounts(2018): 13125
    - The percentage % of 2020 contributions made by newly created accounts(2018): 10.22

- **Submissions**
    - Total submissions in 2020 made by newly created accounts(2018): 584
    - The percentage % of 2020 submissions made by newly created accounts(2018): 7

- **Comments**
    - Total comments in 2020 made by newly created accounts(2018): 12541

2019 accounts

- **Contributions**
    - Total contributions in 2020 made by newly created accounts(2019): 20104
    - The percentage % of 2020 contributions made by newly created accounts(2019): 15.66

- **Submissions**
    - Total submissions in 2020 made by newly created accounts(2019): 1048
    - The percentage % of 2020 submissions made by newly created accounts(2019): 13.29

- **Comments**
    - Total comments in 2020 made by newly created accounts(2019): 19056

2020 accounts

- **Contributions**
  - Total contributions in 2020 made by newly created accounts(2020): 13722
  - The percentage % of 2020 contributions made by newly created accounts(2020): 10.69

- **Submissions**
  - Total submissions in 2020 made by newly created accounts(2020): 996
  - The percentage % of 2020 submissions made by newly created accounts(2020): 12.63

- **Comments**
  - Total comments in 2020 made by newly created accounts(2020): 12726

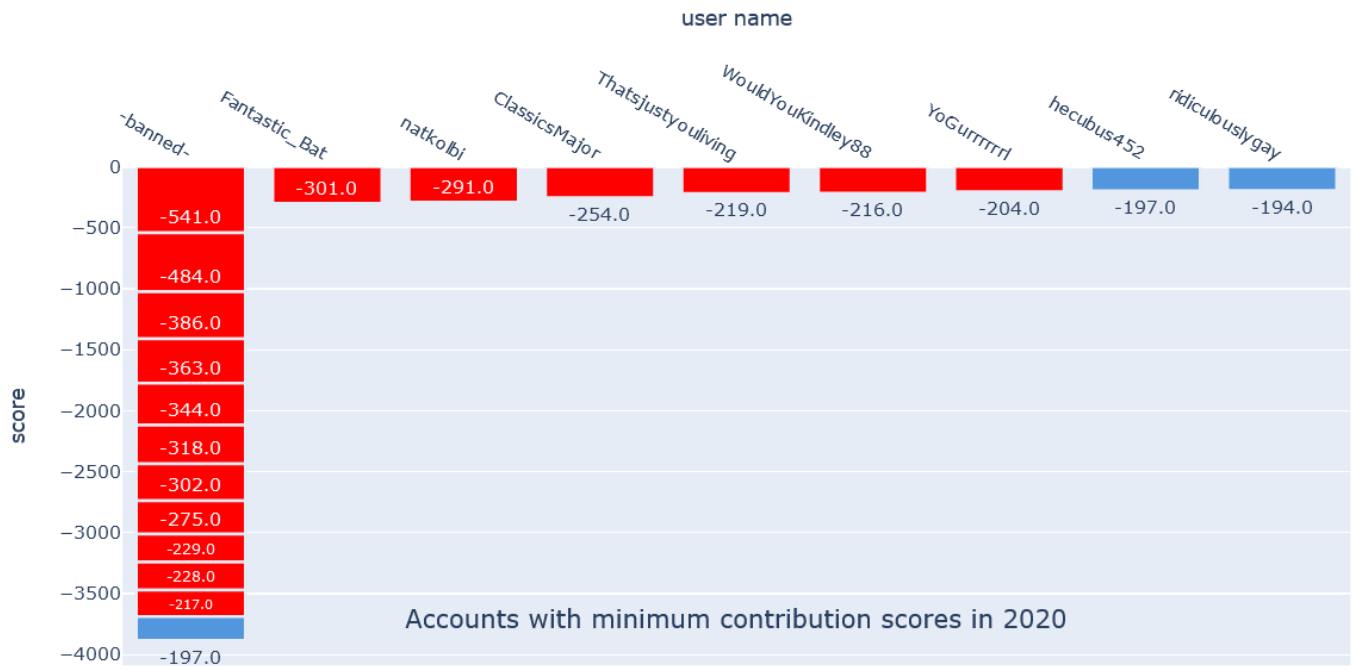
2020 Contributions Scores

- count 128358
- mean 29.53
- std 704.11
- min -541
- 25% 1
- 50% 2
- 75% 6
- max 98525

The red bars indicates banned accounts

KindlyOlPornographer

- Created on 2019-07-27
- Has only 30 negative submissions in 2020 (4 Feb) and got the highest contribution scores (98.5K)
- audio_of_amber_heard_admitting_she_was_the_one



Fantastic_Bat

- Created on 2019-05-02
- Has the minimum contribution scores in 2020

Conclusions

Banned / Unverified Accounts

- About 20% of 2020 contributions were made by banned (7.97% --> 10235) and unverified (13.3% --> 17048) accounts.
- About 20% of 2020 submissions were made by banned (14.9% --> 1175) and unverified (6.48% -> 511) accounts.
- 22.17% of the peak day contributions (04/02/2020) were made by banned (6.77% --> 652 and unverified (15.4% --> 1484) accounts.
- 20% of submissions of the peak day submissions (04/02/2020) were made by banned accounts(14.9% --> 1175) and unverified accounts (6.48% --> 511).

Banned

Armpit-lover (banned)

- this user made 20 contributions with the same text
    - `r/CelebrityArmpits    13`
    - `r/celebnsfw            7`
    - `r/Celebhub             1`
    - `r/goddesses            1`
    - `r/Celebs               1`
    - `r/JerkOffToCelebs      1`

`In those dates:`

    - `2020-07-03    4`
    - `2020-07-05    3`
    - `2020-09-03    3`
    - `2020-07-02    3`
    - `2020-07-04    1`
    - `2020-08-12    1`
    - `2020-07-15    1`
    - `2020-08-19    1`
    - `2020-06-27    1`
    - `2020-07-22    1`
    - `2020-08-02    1`
    - `2020-10-08    1`
    - `2020-07-29    1`
    - `2020-08-13    1`
    - `2020-06-26    1`

rodrigohernandez4477 (banned)

- This user made 25 contributions with the same text in 25
    - 2020-12-05 (13) in 20 minutes.
    - 2020-11-28 (12) in 13 minutes.

cracksniffer666 (banned)

- This user's contributions got the highest scores.
- The highest score is (36.8K)
- (Since this user is banned, we have no user information)
- This user made 99 contributions (98 comments and only one submission).
- 89 contributions from 99 were made at (10 Feb 2020)!

WouldYouKindley88 (banned)

- This user contributions got the minimum scores.
- This user made 37 contributions, all of them are comments.

hecubus452 (banned)

- This user made 6 contributions (2 submissions and 4 comments).
- All contributions have negative scores.
- 5 contributions were made at 2020-02-07

Unverified

Unverified Accounts Contributions in 2020

Accounts Creation Year	n_contributions
2020	10.7% (13722)
2019	15.7% (20104)
2018	10.2% (13125)
banned	7.97% (10235)
others	55.5% (71222)

Unverified Accounts Submissions in 2020

Accounts Creation Year	n_contributions
2020	12.6% (996)
2019	13.3% (1048)
2018	7.41% (584)
banned	14.9% (1175)
others	51.8% (4080)

KindlyOlPornographer

- Created on 2019-07-27
- Has only 30 negative submissions in 2020 (4 Feb) and got the highest contribution scores (98.5K)
- audio_of_amber_heard_admitting_she_was_the_one

Fantastic_Bat

- Created on 2019-05-02
- Has the minimum contribution scores in 2020
- Samples of contributions:
    - Nobody's seriously going to praise Rowling right now for anything. She sided with a man accused of abusing a woman, she sided with a transphobe, she still has a problem with LGBTQ representation, PoC representation, cultural appropriation. . . The list goes on and on.
    - Except that when women lie about abuse, they're saying it's not happening, rather than that it is happening, and they're doing it out of a desire to protect their abuser, even at the expense of their own lives.
    - Men *aren't* the victims of domestic violence, though. They're the *perpetrators*.
    - We have Heard's testimony, and that video of him getting drunk and being abusive toward her.
    - She wasn't, though. She sided with an abuser against his victim. She didn't do the right thing, she engaged in victim blaming, much like this thread is doing now.
    - Standing behind a wife beater is never the right thing to do.
    - Where's the proof he was falsely accused? This video doesn't prove he didn't abuse her, only that she at one point hit him.